

Message

From: Messina, Edward [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=95521FBF4E34496A879E364FAF7E5AA8-MESSINA, EDWARD]
Sent: 4/9/2021 8:22:31 PM
To: Dunton, Cheryl [Dunton.Cheryl@epa.gov]
CC: Nesci, Kimberly [nesci.kimberly@epa.gov]; Aubee, Catherine [aubee.catherine@epa.gov]; Nguyen, Thuy [Nguyen.Thuy@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Darlene Dinkins [Dinkins.Darlene@epa.gov]; Ozmen, Shamus [Ozmen.Shamus@epa.gov]
Subject: RE: ED Questions: Responses to states on PFAS in containers issue
Attachments: PFAS containe responses to states.docx

Thanks. Yes I made a similar point on some other coms materials related to PFAS this week. Catherine might have the latest on the PFAS definition working with OPPT. Kimberly can you help Cheryl with some language?

Ed

Ed Messina, Esq.
Acting Office Director
Office of Pesticide Programs
Office of Chemical Safety & Pollution Prevention
U.S. Environmental Protection Agency
Washington, D.C.
p: (703) 347-0209

From: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Sent: Friday, April 9, 2021 2:16 PM
To: Messina, Edward <Messina.Edward@epa.gov>
Subject: ED Questions: Responses to states on PFAS in containers issue

Hi Ed – folks sent me the attached PFAS in containers responses to states. Rick and Michal asked me to check with you on the following issues with this response. Let me know what you think. Thanks.

From Rick and Michal on the Minnesota inquiry:

- See response to question #2 from Minnesota. There is some new PFAS definition issue you should raise with Ed.
- I think the Minnesota inquiry might merit a call with MDA first. The nuance in our answers may need some additional explanation.
- Also, the state co-regulator workgroups under SFIREG (State FIFRA Research and Evaluation Group) are meeting next week and PFAS is a sizable piece of the agenda. Depending upon the audience for that meeting, this might be something that OPP should discuss/convey to the broader group.

From: Freedhoff, Michal <Freedhoff.Michal@epa.gov>
Sent: Friday, April 9, 2021 2:08 PM
To: Dunton, Cheryl <Dunton.Cheryl@epa.gov>; Keigwin, Richard <Keigwin.Richard@epa.gov>
Cc: Richmond, Jonah <Richmond.Jonah@epa.gov>
Subject: RE: Michal/Rick: Responses to states on PFAS in containers issue

There is some new PFAS definition issue you should raise with Ed.

Michal Freedhoff, Ph.D.
Acting Assistant Administrator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Freedhoff.michal@epa.gov

From: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Sent: Friday, April 9, 2021 1:59 PM
To: Keigwin, Richard <Keigwin.Richard@epa.gov>; Freedhoff, Michal <Freedhoff.Michal@epa.gov>
Cc: Richmond, Jonah <Richmond.Jonah@epa.gov>
Subject: RE: Michal/Rick: Responses to states on PFAS in containers issue

Regarding the definition of PFAS, this is something I worked w/ folks on recently (last week I think). Tala provided this info on how OPPT defines PFAS and confirmed we're using the same definition in this case as well.

I can do some more work on the FL one.

Thanks.

From: Keigwin, Richard <Keigwin.Richard@epa.gov>
Sent: Friday, April 9, 2021 1:56 PM
To: Dunton, Cheryl <Dunton.Cheryl@epa.gov>; Freedhoff, Michal <Freedhoff.Michal@epa.gov>
Cc: Richmond, Jonah <Richmond.Jonah@epa.gov>
Subject: RE: Michal/Rick: Responses to states on PFAS in containers issue

Thanks Cheryl.

Ex. 5 Deliberative Process (DP)

From: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Sent: Friday, April 09, 2021 1:48 PM
To: Freedhoff, Michal <Freedhoff.Michal@epa.gov>; Keigwin, Richard <Keigwin.Richard@epa.gov>
Cc: Richmond, Jonah <Richmond.Jonah@epa.gov>
Subject: Michal/Rick: Responses to states on PFAS in containers issue

Hi Rick/Michal – I understand from Allison that she used to run responses back to the states/other stakeholders on the PFAS in containers issue by you before sending back out. Attached are responses to questions from the Florida Department of Agriculture and Minnesota Department of Agriculture that came in through our PFAS in pesticide packaging email box. There's no "breaking news" in these responses, and they've been adapted from vetted/approved content that we've provided before (to other inbox inquiries from stakeholders, press or on the website).

Let me know if you'd like to continue reviewing these more standard responses or if you're ok with just an FYI. Thanks.

Cheryl Dunton
Acting Deputy Division Director and Communications Director
Communication Services and Information Division
Office of Chemical Safety and Pollution Prevention
202-564-4893

Appointment

From: Nesci, Kimberly [Nesci.Kimberly@epa.gov]
Sent: 2/3/2021 4:50:36 PM
To: Nesci, Kimberly [Nesci.Kimberly@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Nguyen, Thuy [Nguyen.Thuy@epa.gov]; Qian, Yaorong [qian.yaorong@epa.gov]; Teter, Royan [Teter.Royan@epa.gov]; Saenz, Diana [Saenz.Diana@epa.gov]; Aubee, Catherine [Aubee.Catherine@epa.gov]; Anderson, Neil [Anderson.Neil@epa.gov]; Lara, Rhina [Lara.Rhina@epa.gov]; Ozmen, Shamus [Ozmen.Shamus@epa.gov]; Dennis, Allison [Dennis.Allison@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Helfgott, Daniel [Helfgott.Daniel@epa.gov]; Garcia, Beth [garcia.beth@epa.gov]
CC: Messina, Edward [Messina.Edward@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]; Keigwin, Richard [Keigwin.Richard@epa.gov]; Williamson, Tracy [Williamson.Tracy@epa.gov]; Picone, Kaitlin [Picone.Kaitlin@epa.gov]; Charlton, Tom [Charlton.Tom@epa.gov]; Rodman, Sonja [Rodman.Sonja@epa.gov]; Garvey, Mark [Garvey.Mark@epa.gov]; Miles, James [miles.james@epa.gov]; Le, Madison [Le.Madison@epa.gov]; Odusote, Gloria [odusote.gloria@epa.gov]; O'Neill, Sandra [ONeill.Sandra@epa.gov]; Butler, Tristan [Butler.Tristan@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]; Koch, Erin [Koch.Erin@epa.gov]; Wolf, Joel [Wolf.Joel@epa.gov]; Kaczmarek, Chris [Kaczmarek.Chris@epa.gov]; Cyran, Carissa [Cyran.Carissa@epa.gov]; Leifer, Kerry [Leifer.Kerry@epa.gov]; Bellot, Michael [Bellot.Michael@epa.gov]; Davies, Clive [Davies.Clive@epa.gov]; Huskey, Angela [Huskey.Angela@epa.gov]; Dawson, Jeffrey [Dawson.Jeff@epa.gov]; Aunkst, Dana [aunkst.dana@epa.gov]; Driscoll, Stacie [Driscoll.Stacie@epa.gov]; Stroyeck, Lauren [Stroyeck.Lauren@epa.gov]; Williams, Bridget [Williams.Bridget@epa.gov]; Larkin, Jenna [larkin.jenna@epa.gov]; Winters, Melissa [Winters.Melissa@epa.gov]; Forman, Debra [forman.debra@epa.gov]; Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]; Lloyd, Tyler [Lloyd.Tyler@epa.gov]; Wen, Chen [Wen.Chen@epa.gov]; Ellenbogen, Victoria [Ellenbogen.Victoria@epa.gov]; Franklyn, Valarie [Franklyn.Valarie@epa.gov]
Subject: OCSPP/OECA PFAS Check-In
Attachments: Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment; Untitled Attachment
Location: Microsoft Teams Meeting
Start: 2/9/2021 9:00:00 PM
End: 2/9/2021 10:00:00 PM
Show Time As: Busy
Recurrence: Weekly
every Tuesday from 4:00 PM to 5:00 PM
Required Attendees: Nesci, Kimberly; Goodis, Michael; Nguyen, Thuy; Qian, Yaorong; Teter, Royan; Saenz, Diana; Aubee, Catherine; Anderson, Neil; Lara, Rhina; Ozmen, Shamus; Dennis, Allison; Widawsky, David; Helfgott, Daniel; Garcia, Beth
Optional Attendees: Messina, Edward; Echeverria, Marietta; Henry, Tala; Keigwin, Richard; Tracy Williamson (Williamson.Tracy@epa.gov); Picone, Kaitlin; Charlton, Tom; Rodman, Sonja; Garvey, Mark; Miles, James; Madison Le (Le.Madison@epa.gov); Odusote, Gloria; O'Neill, Sandra; Butler, Tristan; Schmit, Ryan; Dunton, Cheryl; Koch, Erin; Wolf, Joel; Kaczmarek, Chris; Cyran, Carissa; Leifer, Kerry; Bellot, Michael; Davies, Clive (Davies.Clive@epa.gov); Huskey, Angela; Dawson, Jeffrey; Aunkst, Dana; Driscoll, Stacie; Stroyeck, Lauren; Bridget Williams; Larkin, Jenna; Winters, Melissa; Forman, Debra; Schwarz, Stephanie; Lloyd, Tyler; Wen, Chen; Ellenbogen, Victoria; Franklyn, Valarie

Standing Agenda/Updates

- OPP/OCSPP
 - o BEAD & lab testing
 - o RD
 - o OPP
- OPS/OCSPP
- OPPT/OCSPP
- OCSPP IO

- OECA
- OGC
- Regions
- Anyone else?

Please review and address comments in the new link. It includes both the status of the OPP lab testing and the status of other collaborations/discussions.

[PFAS in Pesticide Containers - Status - 02.18.2021 - with Comments for Team.docx](#)

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

Ex. 6 Personal Privacy (PP)

[Find a local number](#) | [Reset PIN](#)

By participating in EPA hosted virtual meetings and events, you are consenting to abide by the agency's terms of use. In addition, you acknowledge that content you post may be collected and used in support of FOIA and eDiscovery activities.

[Learn More](#) | [Meeting options](#)

Appointment

To: Nguyen, Thuy [Nguyen.Thuy@epa.gov]; Qian, Yaorong [qian.yaorong@epa.gov]; Teter, Royan [Teter.Royan@epa.gov]; Saenz, Diana [Saenz.Diana@epa.gov]; Aubee, Catherine [Aubee.Catherine@epa.gov]; Anderson, Neil [Anderson.Neil@epa.gov]; Lara, Rhina [Lara.Rhina@epa.gov]; Ozmen, Shamus [Ozmen.Shamus@epa.gov]; Dennis, Allison [Dennis.Allison@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Helfgott, Daniel [Helfgott.Daniel@epa.gov]; Nesci, Kimberly [Nesci.Kimberly@epa.gov]; Goodis, Michael [Goodis.Michael@epa.gov]; Nguyen, Thuy [Nguyen.Thuy@epa.gov]; Qian, Yaorong [qian.yaorong@epa.gov]; Teter, Royan [Teter.Royan@epa.gov]; Saenz, Diana [Saenz.Diana@epa.gov]; Aubee, Catherine [Aubee.Catherine@epa.gov]; Anderson, Neil [Anderson.Neil@epa.gov]; Lara, Rhina [Lara.Rhina@epa.gov]; Ozmen, Shamus [Ozmen.Shamus@epa.gov]; Dennis, Allison [Dennis.Allison@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Helfgott, Daniel [Helfgott.Daniel@epa.gov]

CC: Tracy Williamson (Williamson.Tracy@epa.gov) [Williamson.Tracy@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]; Keigwin, Richard [Keigwin.Richard@epa.gov]; Picone, Kaitlin [Picone.Kaitlin@epa.gov]; Charlton, Tom [Charlton.Tom@epa.gov]; Rodman, Sonja [Rodman.Sonja@epa.gov]; Garvey, Mark [Garvey.Mark@epa.gov]; Miles, James [miles.james@epa.gov]; Le, Madison [Le.Madison@epa.gov]; Odusote, Gloria [odusote.gloria@epa.gov]; O'Neill, Sandra [O'Neill.Sandra@epa.gov]; Butler, Tristan [Butler.Tristan@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]; Koch, Erin [Koch.Erin@epa.gov]; Wolf, Joel [Wolf.Joel@epa.gov]; Kaczmarek, Chris [Kaczmarek.Chris@epa.gov]; Cyran, Carissa [Cyran.Carissa@epa.gov]; Leifer, Kerry [Leifer.Kerry@epa.gov]; Bellot, Michael [Bellot.Michael@epa.gov]; Davies, Clive [Davies.Clive@epa.gov]; Williamson, Tracy [Williamson.Tracy@epa.gov]; Messina, Edward [Messina.Edward@epa.gov]; Echeverria, Marietta [Echeverria.Marietta@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]; Keigwin, Richard [Keigwin.Richard@epa.gov]; Picone, Kaitlin [Picone.Kaitlin@epa.gov]; Charlton, Tom [Charlton.Tom@epa.gov]; Rodman, Sonja [Rodman.Sonja@epa.gov]; Garvey, Mark [Garvey.Mark@epa.gov]; Miles, James [miles.james@epa.gov]; Le, Madison [Le.Madison@epa.gov]; Odusote, Gloria [odusote.gloria@epa.gov]; O'Neill, Sandra [O'Neill.Sandra@epa.gov]; Butler, Tristan [Butler.Tristan@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]; Koch, Erin [Koch.Erin@epa.gov]; Wolf, Joel [Wolf.Joel@epa.gov]; Kaczmarek, Chris [Kaczmarek.Chris@epa.gov]; Cyran, Carissa [Cyran.Carissa@epa.gov]; Leifer, Kerry [Leifer.Kerry@epa.gov]; Bellot, Michael [Bellot.Michael@epa.gov]; Davies, Clive [Davies.Clive@epa.gov]; Dawson, Jeffrey [Dawson.Jeff@epa.gov]; Huskey, Angela [Huskey.Angela@epa.gov]; Williamson, Tracy [Williamson.Tracy@epa.gov]

Start: 3/30/2021 8:00:00 PM

End: 3/30/2021 9:00:00 PM

Show Time As: Busy

Recurrence: (none)

Required Attendees: Goodis, Michael; Nguyen, Thuy; Qian, Yaorong; Teter, Royan; Saenz, Diana; Aubee, Catherine; Anderson, Neil; Lara, Rhina; Ozmen, Shamus; Dennis, Allison; Widawsky, David; Helfgott, Daniel

Optional Attendees: Tracy Williamson (Williamson.Tracy@epa.gov); Messina, Edward; Echeverria, Marietta; Henry, Tala; Keigwin, Richard; Picone, Kaitlin; Charlton, Tom; Rodman, Sonja; Garvey, Mark; Miles, James; Madison Le (Le.Madison@epa.gov); Odusote, Gloria; O'Neill, Sandra; Butler, Tristan; Schmit, Ryan; Dunton, Cheryl; Koch, Erin; Wolf, Joel; Kaczmarek, Chris; Cyran, Carissa; Leifer, Kerry; Bellot, Michael; Davies, Clive (Davies.Clive@epa.gov)

For 3/30/2021 meeting:

- Updates on lab testing (OPP)
 - Own testing status, including anvil data and other data
 - Our thoughts on PEER data
 - Plan – schedule call with Kyla
- Updates from OPP (RD), if any
- Updates from OPPT, if any
- Updates on OECA
 - TSCA Subpoena

- Call between the chemists
- Communication Efforts (OPS)
 - Bloomberg Interview – follow-up on definition of PFAS (kn)
- Any other updates/requests

Please review and address comments in the new link. It includes both the status of the OPP lab testing and the status of other collaborations/discussions.

[PFAS in Pesticide Containers - Status - 02.18.2021 - with Comments for Team.docx](#)

Microsoft Teams meeting

Join on your computer or mobile app

[Click here to join the meeting](#)

Or call in (audio only)

Ex. 6 Personal Privacy (PP)

[Find a local number](#) | [Reset PIN](#)

By participating in EPA hosted virtual meetings and events, you are consenting to abide by the agency's terms of use. In addition, you acknowledge that content you post may be collected and used in support of FOIA and eDiscovery activities.

[Learn More](#) | [Meeting options](#)

Message

From: Libelo, Laurence [Libelo.Laurence@epa.gov]
Sent: 4/14/2021 7:02:56 PM
To: Gaines, Linda [Gaines.Linda@epa.gov]; Stalcup, Dana [Stalcup.Dana@epa.gov]; Douchand, Larry [Douchand.Larry@epa.gov]; Schutz, Michelle [Schutz.Michelle@epa.gov]; Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]; Ammon, Doug [Ammon.Doug@epa.gov]; Lowery, Brigid [Lowery.Brigid@epa.gov]; Barr, Pamela [Barr.Pamela@epa.gov]; Gilbert, Edward [Gilbert.Edward@epa.gov]; Pachon, Carlos [Pachon.Carlos@epa.gov]
Subject: PFAS definition question

Hi Dana,

We talked about the NDAA PFAS definitions in 2019 when it was being drafted. Here is an email trail with our (OLEM's) thoughts on the HEC definition while it was under consideration back in 2019.

Ex. 5 Deliberative Process (DP)

Laurence

2019 question:

HEC TA Question:

Is the proposed definition of PFAS below too broad to include pharmaceuticals? Does EPA have any suggested clarifications to the definitions?

(2) FULLY FLUORINATED CARBON ATOM.—The term “fully fluorinated carbon atom” means a carbon atom on which all the hydrogen substituents have been replaced by fluorine.

(3) PFAS.—The term “PFAS” means perfluoroalkyl and polyfluoroalkyl substances that are man-made chemicals with at least one fully fluorinated carbon atom.

Laurence Libelo, Chief
Science Policy Branch
ARD/OSRTI/OLEM
(703) 603-8815
Cell (571) 447- 3986

From: Libelo, Laurence
Sent: Thursday, June 27, 2019 12:17 PM

To: Woolford, James <Woolford.James@epa.gov>; Lowery, Brigid <Lowery.Brigid@epa.gov>

Subject: FW: follow up TA question-- PFAS destruction/disposal-definitions

FYI-

Ex. 5 Deliberative Process (DP)

Laurence

From: Manges, Ellen

Sent: Thursday, June 27, 2019 12:04 PM

To: Levine, Carolyn <Levine.Carolyn@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent

<Benjamin.Kent@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>; Johnson, Barnes

<Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Radtke, Meghan

<Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon,

Lilybeth <Colon.Lilybeth@epa.gov>; Strock, Troy <strock.troy@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>

Subject: FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Carolyn – Per your request to clarify that the definition we offered on Tuesday was the best one in the opinion of the program - you can see below that with more time, Norm Birchfield from ORCR consulted with more of his colleagues and suggests the following:

Ex. 5 Deliberative Process (DP)

This has been cleared by the OLEM IO. I hope this helps. - Ellen

Ellen Manges

Acting Deputy Director

Office of Communications, Partnerships and Analysis

Office of Land and Emergency Response / U.S. EPA

202-566-0195

From: Birchfield, Norman

Sent: Thursday, June 27, 2019 11:20 AM

To: Manges, Ellen <Manges.Ellen@epa.gov>

Cc: Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>; Johnson, Barnes

<Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Radtke, Meghan

<Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon,

Lilybeth <Colon.Lilybeth@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>; ORCR IO <ORCR_IO@epa.gov>; Strock,

Troy <strock.troy@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>

Subject: RE: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen

Ex. 5 Deliberative Process (DP)

Thanks

Norm

Norman Birchfield, Ph.D.
Economic & Risk Analysis Staff, Chief
Office of Resource Conservation and Recovery
U.S. EPA
1200 Pennsylvania Ave., NW, MC 5305P
Washington, DC 20460
Phone: (703) 347-0174

From: Manges, Ellen

Sent: Wednesday, June 26, 2019 1:16 PM

To: Birchfield, Norman <Birchfield.Norman@epa.gov>

Cc: Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>

Subject: FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Norm – Per Carolyn in OCIR, the HEC staff found your definition to be extremely helpful. Can you double check with your contacts per our discussion and confirm that this is the best way to describe them? Please get back to us by noon tomorrow – then we can get the final response in front of Peter/Steven/Barry/Nigel and the get it to Carolyn/OCIR. Thanks Norm for the great input on this. – Ellen

Ellen Manges

Acting Deputy Director

Office of Communications, Partnerships and Analysis

Office of Land and Emergency Response / U.S. EPA

202-566-0195

From: Levine, Carolyn

Sent: Wednesday, June 26, 2019 12:02 PM

To: Manges, Ellen <Manges.Ellen@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>

Subject: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen/Jackie-

The TA from ORCR was extremely helpful for House E&C staff. Can we take Norm up on his offer to check with others? Tomorrow afternoon for any updated TA, would be helpful.

Thanks, and let me know any questions.

Carolyn

Carolyn Levine

Office of Congressional and

Intergovernmental Relations

U.S. EPA

(202) 564-1859

levine.carolyn@epa.gov

From: Manges, Ellen

Sent: Tuesday, June 25, 2019 9:32 AM

To: Levine, Carolyn <Levine.Carolyn@epa.gov>

Cc: Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Breen, Barry <Breen.Barry@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>;

Birchfield, Norman <Birchfield.Norman@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>

Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Carolyn – See Norm’s response below. I discussed with Peter and he agrees with Norm on this. Per Norm, their definition doesn’t seem like it changed from the original proposal. I’ve pulled out the following definition from Norm’s note (Norm – please correct if wrong):

Ex. 5 Deliberative Process (DP)

Ellen Manges
Acting Deputy Director
Office of Communications, Partnerships and Analysis
Office of Land and Emergency Response / U.S. EPA
202-566-0195

From: Birchfield, Norman

Sent: Tuesday, June 25, 2019 8:24 AM

To: Manges, Ellen <Manges.Ellen@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>

Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen

The definition below doesn’t seem like it changed from the original proposal. As it stands I think there are many pesticides and pharmaceuticals that would be included in the definition. Prozac and cipro both have a fully fluorinated carbon atom. Many pesticides also have one fully fluorinated carbon atom.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) These are a couple of quick answers. With some more time, it would be great to check with a few others to see if there is a better way of describing them. Let me know if spending any more time on this would be helpful.

Thanks!

Norm

From: Manges, Ellen

Sent: Monday, June 24, 2019 5:28 PM

To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent

<Benjamin.Kent@epa.gov>

Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Adding in Norman.

From: Manges, Ellen

Sent: Monday, June 24, 2019 5:12 PM

To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>

Subject: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi All – Please see Carolyn’s note. HEC is hoping for an answer ASAP. Thanks – Ellen (I’m backing up Melanie today)

Ellen Manges

Acting Deputy Director

Office of Communications, Partnerships and Analysis

Office of Land and Emergency Response / U.S. EPA

202-566-0195

From: Levine, Carolyn

Sent: Monday, June 24, 2019 5:07 PM

To: Manges, Ellen <Manges.Ellen@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>

Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>

Subject: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen-

House E&C has a time-sensitive question, following up on the ORCR comment #2 in the email below that Melanie had worked with ORCR on. Staff were looking for an answer today, but I know that might be tough given the hour, so let me know what you hear...thanks!

HEC TA Question:

Is the proposed definition of PFAS below too broad to include pharmaceuticals? Does EPA have any suggested clarifications to the definitions?

(2) FULLY FLUORINATED CARBON ATOM.—The term “fully fluorinated carbon atom” means a carbon atom on which all the hydrogen substituents have been replaced by fluorine.

(3) PFAS.—The term “PFAS” means perfluoroalkyl and polyfluoroalkyl substances that are man-made chemicals with at least one fully fluorinated carbon atom.

Carolyn

Carolyn Levine

Office of Congressional and

Intergovernmental Relations

U.S. EPA

(202) 564-1859

From: Birchfield, Norman
Sent: Tuesday, June 11, 2019 4:29 PM
To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>
Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>
Subject: RE: URGENT TA Request -- PFAS destruction/disposal

Hi Melanie

We suggest making two points in response:

Ex. 5 Deliberative Process (DP)

Thanks

Norm

From: Radtke, Meghan
Sent: Tuesday, June 11, 2019 2:34 PM
To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>
Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>
Subject: RE: URGENT TA Request -- PFAS destruction/disposal

Norm,

Can you also please take a look at this? It's another short deadline, but the text is limited (see below).

Thank you!

Meghan

Meghan Radtke, Ph.D., Biologist
Special Assistant
Office of Resource Conservation and Recovery
Office of Land and Emergency Management
U.S. Environmental Protection Agency
Desk phone: 703-347-0229
Mobile: 703-472-8215

From: Keller, Melanie
Sent: Tuesday, June 11, 2019 2:26 PM
To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>
Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>
Subject: URGENT TA Request -- PFAS destruction/disposal
Importance: High

Good afternoon,

OCIR sent me this **urgent** request from Senate EPW (majority).

I am seeking TA comments on the following draft language by **4:30 today, to me, please**. I will run it by the OLEM IO for a quick check after I receive it from you.

OCIR and I also included OGC (Jen Lewis)

Thank you for your time and consideration,
Melanie

SECTION 1. GUIDANCE.

(a) IN GENERAL.—

- (1) Not later than one year after the date of enactment of this Act, the Administrator of the Environmental Protection Agency shall propose public guidance for other federal agencies on the destruction and disposal of PFAS and PFAS-containing materials, including but not limited to: aqueous film-forming foam; PFAS-contaminated soil and biosolids; PFAS-treated textiles; and spent filters, membranes, and other waste from PFAS-contaminated water treatment.
- (2) Such guidance shall take into consideration the potential for PFAS releases during destruction or disposal, including through volatilization, air dispersion, or leachate, and provide guidance on testing and monitoring air, effluent, and soil near potential destruction or disposal sites for such releases.
- (3) Such guidance shall take into consideration of potentially vulnerable populations living near likely destruction or disposal sites.
- (4) Not later than 18 months after the date of enactment of this Act, the Administrator shall finalize such guidance and make it available to the public.

(b) DEFINITION.—In this Act, the term “PFAS” means a perfluoroalkyl or polyfluoroalkyl substance with at least one fully fluorinated carbon atom.

Melanie C. Keller

Congressional Liaison
United States Environmental Protection Agency
Office of Land and Emergency Management (OLEM)

(202) 566-2772 – office
(202) 897-9357 – mobile

keller.melanie@epa.gov



Message

From: Libelo, Laurence [Libelo.Laurence@epa.gov]
Sent: 4/23/2021 2:46:37 PM
To: Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]; Birchfield, Norman [Birchfield.Norman@epa.gov]; Kirk, Andrea [Kirk.Andrea@epa.gov]; Craig, Evisabel [Craig.Evisabel@epa.gov]; Burgess, Michele [Burgess.Michele@epa.gov]; Kapuscinski, Rich [Kapuscinski.Rich@epa.gov]; Gaines, Linda [Gaines.Linda@epa.gov]
Subject: PFAS definition for n med monitoring bill

<https://www.gillibrand.senate.gov/imo/media/doc/PFAS%20Accountability%20Act%20-%20Bill%20Text.pdf>

Last weeks med monitoring bill had this definition of PFAS.

“(a) DEFINITION OF PFAS.—In this section, the
4 term ‘PFAS’ means a perfluoroalkyl or polyfluoroalkyl
5 substance with at least 1 fully fluorinated carbon atom.

Sent from my iPhone

Message

From: Elliott, Ross [Elliott.Ross@epa.gov]
Sent: 6/28/2021 1:57:36 PM
To: Cuthbertson, Becky [Cuthbertson.Becky@epa.gov]
CC: Gaines, Linda [Gaines.Linda@epa.gov]
Subject: RE: In case helpful: TSCA definition of PFAS for purposes of a June 28 2021 proposed TSCA reporting rule

Thanks!

+ Troy Strock and Linda Gaines as FYI

From: Cuthbertson, Becky <Cuthbertson.Becky@epa.gov>
Sent: Monday, June 28, 2021 9:51 AM
To: Crincoli, Klara <Crincoli.Klara@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Chaudhari, Narendra <Chaudhari.Narendra@epa.gov>; Kirkland, Kim <Kirkland.Kim@epa.gov>; Strock, Troy <strock.troy@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>; Hodes, Colette <Hodes.Colette@epa.gov>; Taylor, Timothy <Taylor.Timothy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Crossland, Andy <Crossland.Andy@epa.gov>; Sasseville, Sonya <Sasseville.Sonya@epa.gov>
Cc: Grant, Brian <Grant.Brian@epa.gov>; Freed, Elisabeth <Freed.Elisabeth@epa.gov>
Subject: In case helpful: TSCA definition of PFAS for purposes of a June 28 2021 proposed TSCA reporting rule

Hi,

Today there was a proposed rule published in the Federal Register for reporting on manufacturing and use of certain PFAS under TSCA authority. The preamble description of what falls into the definition of PFAS at 86 FR 33929 describes it as:

Reportable chemicals substances.

Under TSCA section 8(a)(7), EPA must collect information on chemical substances that are “perfluoroalkyl or polyfluoroalkyl” substances or PFAS. EPA has determined that any PFAS that fall within the structural definition, described below, are the PFAS referred to in TSCA section 8(a)(7). For this proposed rule, EPA has identified at least 1,364 chemical substances and mixtures that are PFAS and would potentially be subject to reporting under the final rule, if they have been manufactured in any year since January 1, 2011. For the purposes of this proposed action, the structural definition of PFAS includes per- and polyfluorinated substances that structurally contain the unit R-(CF₂)-C(F)(R')R”. Both the CF₂ and CF moieties are saturated carbons and none of the R groups (R, R' or R”) can be hydrogen. It should be noted that this structural definition of PFAS is a working definition which has been used by EPA’s Office of Pollution Prevention and Toxics when identifying PFAS on the TSCA Inventory. This definition may not be identical to other definitions of PFAS used within EPA and/or other organizations. To assist potential reporters with determining whether certain substances may be covered under this structural definition, EPA has identified specific PFAS covered by this proposed rule. These will be included as non-exhaustive examples in the rule where it is possible to do so without divulging information claimed as CBI.....

the proposed rule text for 40 CFR 705.3 reads:

Per- and polyfluoroalkyl substances or PFAS, for the purpose of this part, means any chemical substance or mixture that structurally contains the unit R-(CF₂)-C(F)(R')R”. Both the CF₂ and CF moieties are saturated carbons. None of the R groups (R, R' or R”) can be hydrogen.

Full proposal is attached.

Message

From: Libelo, Laurence [Libelo.Laurence@epa.gov]
Sent: 6/28/2021 6:06:45 PM
To: Taylor, Timothy [Taylor.Timothy@epa.gov]; Gaines, Linda [Gaines.Linda@epa.gov]
CC: Birchfield, Norman [Birchfield.Norman@epa.gov]
Subject: RE: In case helpful: TSCA definition of PFAS for purposes of a June 28 2021 proposed TSCA reporting rule

Thanks Tim,

"R-(CF₂)-C(F)(R')R". Both the CF₂ and CF moieties are saturated carbons and none of the R groups (R, R' or R") can be hydrogen.

is similar but more inclusive than the definition we worked out for the OPPT rules starting in about 2005. Most of the OPPT rules say something similar with

"...R=any chemical moiety..." to include the salts/precursors/other chemicals that may not have CAS#s but we know form the acid ions the same as COO⁻ or SO₂⁻. Rather than try to identify each specific chemical and then play whack-a-mole as industry changed the R groups to avoid the rules we went with a broad definition.

This definition is about the same as what Norm suggested last year. Anything with one fully fluorinated carbon and another carbon with one or more F attached.

It avoids drugs and pesticides as they mostly have only a CF₃ attached. It will include 10,000++ other chemicals.

Laurence Libelo, Chief
Science Policy Branch
ARD/OSRTI/OLEM
(703) 603-8815
Cell (571) 447- 3986

From: Taylor, Timothy <Taylor.Timothy@epa.gov>
Sent: Monday, June 28, 2021 1:10 PM
To: Gaines, Linda <Gaines.Linda@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>
Cc: Birchfield, Norman <Birchfield.Norman@epa.gov>
Subject: FW: In case helpful: TSCA definition of PFAS for purposes of a June 28 2021 proposed TSCA reporting rule

Linda/Lawrence:

This definition isn't likely news to either of you, but figured I'd make sure.

More of a reminder that OLEM needs to make sure our definition is well-considered.

-Tim

From: Cuthbertson, Becky <Cuthbertson.Becky@epa.gov>
Sent: Monday, June 28, 2021 9:51 AM
To: Crincoli, Klara <Crincoli.Klara@epa.gov>; Mooney, Charlotte <Mooney.Charlotte@epa.gov>; Foster, Barbara <Foster.Barbara@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Chaudhari, Narendra <Chaudhari.Narendra@epa.gov>; Kirkland, Kim <Kirkland.Kim@epa.gov>; Strock, Troy <strock.troy@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>; Hodes, Colette <Hodes.Colette@epa.gov>; Taylor, Timothy <Taylor.Timothy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Crossland, Andy <Crossland.Andy@epa.gov>;

Sasseville, Sonya <Sasseville.Sonya@epa.gov>

Cc: Grant, Brian <Grant.Brian@epa.gov>; Freed, Elisabeth <Freed.Elisabeth@epa.gov>

Subject: In case helpful: TSCA definition of PFAS for purposes of a June 28 2021 proposed TSCA reporting rule

Hi,

Today there was a proposed rule published in the Federal Register for reporting on manufacturing and use of certain PFAS under TSCA authority. The preamble description of what falls into the definition of PFAS at 86 FR 33929 describes it as:

Reportable chemicals substances.

Under TSCA section 8(a)(7), EPA must collect information on chemical substances that are “perfluoroalkyl or polyfluoroalkyl” substances or PFAS. EPA has determined that any PFAS that fall within the structural definition, described below, are the PFAS referred to in TSCA section 8(a)(7). For this proposed rule, EPA has identified at least 1,364 chemical substances and mixtures that are PFAS and would potentially be subject to reporting under the final rule, if they have been manufactured in any year since January 1, 2011. For the purposes of this proposed action, the structural definition of PFAS includes per- and polyfluorinated substances that structurally contain the unit R-(CF₂)-C(F)(R')R''. Both the CF₂ and CF moieties are saturated carbons and none of the R groups (R, R' or R'') can be hydrogen. It should be noted that this structural definition of PFAS is a working definition which has been used by EPA's Office of Pollution Prevention and Toxics when identifying PFAS on the TSCA Inventory. This definition may not be identical to other definitions of PFAS used within EPA and/or other organizations. To assist potential reporters with determining whether certain substances may be covered under this structural definition, EPA has identified specific PFAS covered by this proposed rule. These will be included as non-exhaustive examples in the rule where it is possible to do so without divulging information claimed as CBI.....

the proposed rule text for 40 CFR 705.3 reads:

Per- and polyfluoroalkyl substances or PFAS, for the purpose of this part, means any chemical substance or mixture that structurally contains the unit R-(CF₂)-C(F)(R')R''. Both the CF₂ and CF moieties are saturated carbons. None of the R groups (R, R' or R'') can be hydrogen.

Full proposal is attached.

Message

From: Libelo, Laurence [Libelo.Laurence@epa.gov]
Sent: 5/16/2019 3:27:01 PM
To: Woolford, James [Woolford.James@epa.gov]; Stalcup, Dana [Stalcup.Dana@epa.gov]; Lowery, Brigid [Lowery.Brigid@epa.gov]; Schutz, Michelle [Schutz.Michelle@epa.gov]; Jeng, Terry [Jeng.Terry@epa.gov]; Ammon, Doug [Ammon.Doug@epa.gov]; Gaines, Linda [Gaines.Linda@epa.gov]
Subject: SEPW TA Request - CERCLA designation proposed edits
Attachments: SEPW TA request- CERCLA designation - May 14 LL comments.docx

Draft edits and comments as of yesterday afternoon with input from Linda, Michele, Andrea, Michelle and Terry.

This does not include the option of listing the 9 chemicals as hazardous.

Laurence Libelo, Chief
Science Policy Branch
ARD/OSRTI/OLEM
(703) 603-8815
Cell (571) 447- 4986

From: Birchfield, Norman [Birchfield.Norman@epa.gov]
Sent: 6/27/2019 1:11:33 PM
To: Strock, Troy [strock.troy@epa.gov]; Libelo, Laurence [Libelo.Laurence@epa.gov]; Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]; Helms, Greg [Helms.Greg@epa.gov]; Fagnant, Daniel [fagnant.daniel@epa.gov]; Kirkland, Kim [Kirkland.Kim@epa.gov]; Gaines, Linda [Gaines.Linda@epa.gov]; Chaudhari, Narendra [Chaudhari.Narendra@epa.gov]
CC: Radtke, Meghan [Radtke.Meghan@epa.gov]; ORCR IO [ORCR_IO@epa.gov]; Elliott, Ross [Elliott.Ross@epa.gov]
Subject: RE: Definition of PFAS for legislation

Ex. 5 Deliberative Process (DP)

From: Strock, Troy
Sent: Thursday, June 27, 2019 8:46 AM
To: Birchfield, Norman <Birchfield.Norman@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>; Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Kirkland, Kim <Kirkland.Kim@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>; Chaudhari, Narendra <Chaudhari.Narendra@epa.gov>
Cc: Radtke, Meghan <Radtke.Meghan@epa.gov>; ORCR IO <ORCR_IO@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>
Subject: RE: Definition of PFAS for legislation

Norm-

Laurence and I discussed briefly yesterday afternoon, and the definition you sent has merit, but it's hard to cover all the chemicals that might be of interest and keep the definition simple (he pointed out this definition would not include HFPO).

This may be too late to be helpful, but the following definitions were in a recent congressional bill related to USGS.

4 (iv) PERFLUOROALKYL SUBSTANCE.—

5 The term “perfluoroalkyl substance”

6 means a manmade chemical of which all of

7 the carbon atoms are fully fluorinated car

8 bon atoms.

9 (v) POLYFLUOROALKYL SUB

10 STANCE.—The term “polyfluoroalkyl sub

11 stance” means a manmade chemical con

12 taining a mix of fully fluorinated carbon

13 atoms, partially fluorinated carbon atoms,
14 and nonfluorinated carbon atoms.

Ex. 5 Deliberative Process (DP)

"In this Act, PFAS means a manmade chemical of which two or more carbon atoms are fully fluorinated and potentially including one or more carbon atoms that are partially fluorinated or non-fluorinated."

Troy Strock, chemist
US Environmental Protection Agency
Office of Land and Environmental Management
Office of Superfund Remediation and Technology Innovation
Technology Innovation and Field Services Division
Analytical Services Branch
Phone: 703.603.8801
e-mail: strock.troy@epa.gov

From: Birchfield, Norman

Sent: Wednesday, June 26, 2019 1:40 PM

To: Libelo, Laurence <Libelo.Laurence@epa.gov>; Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>; Helms, Greg <Helms.Greg@epa.gov>; Fagnant, Daniel <fagnant.daniel@epa.gov>; Kirkland, Kim <Kirkland.Kim@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>; Strock, Troy <strock.troy@epa.gov>; Chaudhari, Narendra <Chaudhari.Narendra@epa.gov>

Cc: Radtke, Meghan <Radtke.Meghan@epa.gov>; ORCR IO <ORCR_IO@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>

Subject: Definition of PFAS for legislation

Hi all

We have had a some exchange with the House E&C committee staff regarding a definition for PFAS in draft legislation that they are crafting. I'll save you the blow-by-blow discussion and cut to the current question.... Do you think the definition below is adequate for describing PFAS as we currently understand them?

Ex. 5 Deliberative Process (DP)

A response by COB today would be helpful. Thanks!

NB

From: Manges, Ellen

Sent: Wednesday, June 26, 2019 1:16 PM

To: Birchfield, Norman <Birchfield.Norman@epa.gov>

Cc: Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>

Subject: FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Norm – Per Carolyn in OCIR, the HEC staff found your definition to be extremely helpful. Can you double check with your contacts per our discussion and confirm that this is the best way to describe them? Please get back to us by noon

tomorrow – then we can get the final response in front of Peter/Steven/Barry/Nigel and then get it to Carolyn/OCIR.
Thanks Norm for the great input on this. – Ellen

Ellen Manges
Acting Deputy Director
Office of Communications, Partnerships and Analysis
Office of Land and Emergency Response / U.S. EPA
202-566-0195

From: Levine, Carolyn
Sent: Wednesday, June 26, 2019 12:02 PM
To: Manges, Ellen <Manges.Ellen@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>
Cc: Keller, Melanie <Keller.Melanie@epa.gov>
Subject: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen/Jackie-

The TA from ORCR was extremely helpful for House E&C staff. Can we take Norm up on his offer to check with others? Tomorrow afternoon for any updated TA, would be helpful.

Thanks, and let me know any questions.

Carolyn

Carolyn Levine
Office of Congressional and
Intergovernmental Relations
U.S. EPA
(202) 564-1859
levine.carolyn@epa.gov

From: Manges, Ellen
Sent: Tuesday, June 25, 2019 9:32 AM
To: Levine, Carolyn <Levine.Carolyn@epa.gov>
Cc: Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Breen, Barry <Breen.Barry@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>
Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Carolyn – See Norm's response below. I discussed with Peter and he agrees with Norm on this. Per Norm, their definition doesn't seem like it changed from the original proposal. I've pulled out the following definition from Norm's note (Norm – please correct if wrong):

Ex. 5 Deliberative Process (DP)

Ellen Manges
Acting Deputy Director
Office of Communications, Partnerships and Analysis
Office of Land and Emergency Response / U.S. EPA

From: Birchfield, Norman
Sent: Tuesday, June 25, 2019 8:24 AM
To: Manges, Ellen <Manges.Ellen@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>
Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>
Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen

The definition below doesn't seem like it changed from the original proposal. As it stands I think there are many pesticides and pharmaceuticals that would be included in the definition. Prozac and cipro both have a fully fluorinated carbon atom. Many pesticides also have one fully fluorinated carbon atom. (

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) These are a couple of quick answers. With some more time, it would be great to check with a few others to see if there is a better way of describing them. Let me know if spending any more time on this would be helpful.

Thanks!

Norm

From: Manges, Ellen
Sent: Monday, June 24, 2019 5:28 PM
To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>
Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>
Subject: RE: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Adding in Norman.

From: Manges, Ellen
Sent: Monday, June 24, 2019 5:12 PM
To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>
Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>
Subject: Time Sensitive FW: follow up TA question-- PFAS destruction/disposal-definitions

Hi All – Please see Carolyn's note. HEC is hoping for an answer ASAP. Thanks – Ellen (I'm backing up Melanie today)

Ellen Manges

Acting Deputy Director
Office of Communications, Partnerships and Analysis
Office of Land and Emergency Response / U.S. EPA
202-566-0195

From: Levine, Carolyn
Sent: Monday, June 24, 2019 5:07 PM
To: Manges, Ellen <Manges.Ellen@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>
Cc: Keller, Melanie <Keller.Melanie@epa.gov>; Harwood, Jackie <Harwood.Jackie@epa.gov>
Subject: follow up TA question-- PFAS destruction/disposal-definitions

Hi Ellen-

House E&C has a time-sensitive question, following up on the [ORCR comment #2](#) in the email below that Melanie had worked with ORCR on. Staff were looking for an answer today, but I know that might be tough given the hour, so let me know what you hear...thanks!

HEC TA Question:

Is the proposed definition of PFAS below too broad to include pharmaceuticals? Does EPA have any suggested clarifications to the definitions?

(2) FULLY FLUORINATED CARBON ATOM.—The term “fully fluorinated carbon atom” means a carbon atom on which all the hydrogen substituents have been replaced by fluorine.

(3) PFAS.—The term “PFAS” means perfluoroalkyl and polyfluoroalkyl substances that are man-made chemicals with at least one fully fluorinated carbon atom.

Carolyn

Carolyn Levine
Office of Congressional and
Intergovernmental Relations
U.S. EPA
(202) 564-1859
levine.carolyn@epa.gov

From: Birchfield, Norman
Sent: Tuesday, June 11, 2019 4:29 PM
To: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Keller, Melanie <Keller.Melanie@epa.gov>
Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>
Subject: RE: URGENT TA Request -- PFAS destruction/disposal

Hi Melanie

We suggest making two points in response:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks

Norm

From: Radtke, Meghan

Sent: Tuesday, June 11, 2019 2:34 PM

To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>

Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>

Subject: RE: URGENT TA Request -- PFAS destruction/disposal

Norm,

Can you also please take a look at this? It's another short deadline, but the text is limited (see below).

Thank you!

Meghan

Meghan Radtke, Ph.D., Biologist
Special Assistant
Office of Resource Conservation and Recovery
Office of Land and Emergency Management
U.S. Environmental Protection Agency
Desk phone: 703-347-0229
Mobile: 703-472-8215

From: Keller, Melanie

Sent: Tuesday, June 11, 2019 2:26 PM

To: Johnson, Barnes <Johnson.Barnes@epa.gov>; Salyer, Kathleen <Salyer.Kathleen@epa.gov>

Cc: Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Colon, Lilybeth <Colon.Lilybeth@epa.gov>; Radtke, Meghan <Radtke.Meghan@epa.gov>

Subject: URGENT TA Request -- PFAS destruction/disposal

Importance: High

Good afternoon,

OCIR sent me this **urgent** request from Senate EPW (majority).

I am seeking TA comments on the following draft language by **4:30 today, to me, please**. I will run it by the OLEM IO for a quick check after I receive it from you.

OCIR and I also included OGC (Jen Lewis)

Thank you for your time and consideration,
Melanie

SECTION 1. GUIDANCE.

(a) IN GENERAL.—

- (1) Not later than one year after the date of enactment of this Act, the Administrator of the Environmental Protection Agency shall propose public guidance for other federal agencies on the destruction and disposal of PFAS and PFAS-containing materials, including but not limited to: aqueous film-forming foam; PFAS-contaminated soil and biosolids; PFAS-treated textiles; and spent filters, membranes, and other waste from PFAS-contaminated water treatment.
- (2) Such guidance shall take into consideration the potential for PFAS releases during destruction or disposal, including through volatilization, air dispersion, or leachate, and provide guidance on testing and monitoring air, effluent, and soil near potential destruction or disposal sites for such releases.
- (3) Such guidance shall take into consideration of potentially vulnerable populations living near likely destruction or disposal sites.
- (4) Not later than 18 months after the date of enactment of this Act, the Administrator shall finalize such guidance and make it available to the public.

(b) DEFINITION.—In this Act, the term “PFAS” means a perfluoroalkyl or polyfluoroalkyl substance with at least one fully fluorinated carbon atom.

Melanie C. Keller

Congressional Liaison
United States Environmental Protection Agency
Office of Land and Emergency Management (OLEM)

(202) 566-2772 – office
(202) 897-9357 – mobile

keller.melanie@epa.gov



Message

From: Anderson, RobinM [Anderson.RobinM@epa.gov]
Sent: 7/22/2019 6:57:50 PM
To: Gaines, Linda [Gaines.Linda@epa.gov]
Subject: RE: What is a "pollutant or contaminant"?

agreed

-----Original Message-----

From: Gaines, Linda
Sent: Monday, July 22, 2019 1:49 PM
To: Anderson, RobinM <Anderson.RobinM@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>
Subject: RE: What is a "pollutant or contaminant"?

I haven't looked at that many RODs in my time, but I don't think we generally ever specify if a contaminant is a hazardous substance or a P&C. They just calculate risk based which contaminants that are found at the site have a toxicity value. Then they look at ARARs. If we are going off of which ones have toxicity values, it is PFOA, PFOS, and PFBS.

Linda G.T. Gaines, Ph.D., P.E., BCEE
Environmental Engineer
U.S. Environmental Protection Agency
OLEM/OSRTI/ARD/Science Policy Branch
Gaines.Linda@epa.gov
Phone: (703) 603-7189

-----Original Message-----

From: Anderson, RobinM
Sent: Monday, July 22, 2019 1:40 PM
To: Libelo, Laurence <Libelo.Laurence@epa.gov>
Cc: Gaines, Linda <Gaines.Linda@epa.gov>
Subject: RE: What is a "pollutant or contaminant"?

If and when it happened it would be documented in a ROD/or Action Memo. The few RODs/Action Memos where we have addressed PFAS (Linda Gaines knows which ones of these) we could look to see what was said. But it is my understanding that we have only used our slope factors and HAS - if we don't have that we have not gone further for any of the others PFAS compounds. Therefore - this eliminate most all PFAS with the exception of the hanfill we have a tox value and HA value that we in Superfund have accepted.

Re other non PFAS contaminants -- It would take going through a very detailed, labor intensive search of RODs to see when this has been done for other P&Cs. I recall that it has for other contaminants -- just don't have knowledge of which ones or what sites.

-----Original Message-----

From: Libelo, Laurence
Sent: Monday, July 22, 2019 10:20 AM
To: Anderson, RobinM <Anderson.RobinM@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>
Subject: RE: What is a "pollutant or contaminant"?

How is this determine this? Do we make a formal declaration? How is it documented? Have any PFAS been subject to a determination?

-----Original Message-----

From: Anderson, RobinM
Sent: Monday, July 22, 2019 10:02 AM
To: Libelo, Laurence <Libelo.Laurence@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>
Subject: RE: What is a "pollutant or contaminant"?

All the PFAS are "potential" pollutants or contaminants. They need to be determined that they "may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring." and we havenot made that determination either nationally or on a site-specific basis.

-----Original Message-----

From: Anderson, RobinM
Sent: Monday, July 22, 2019 9:59 AM
To: Libelo, Laurence <Libelo.Laurence@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>
Subject: RE: What is a "pollutant or contaminant"?

So while all of the PFAS compounds are not Hazardous substances -- only if "may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.."

-----Original Message-----

Good morning,

HEC has raised the following question about PFAS as a "pollutant or contaminant" under CERCLA 101 (33).

Is OSRTI the best office to handle this question, or is it another OLEM office? Also, if we're getting into statutory definitions, my gut says we pull in OGC too. Thoughts???

This isn't "urgent" per se, but we need to keep this moving because there is a slim possibility that meetings to resolve the NDAA bills may occur before the August recess (begins July 27).

QUESTION:

Does the Agency consider one or more PFAS substances a "pollutant or contaminant" as defined in section 101(33) of CERCLA? If so, which PFAS substances does the Agency consider to meet this definition?

Thank you for your time and response,
Melanie

Melanie C. Keller
US Environmental Protection Agency
Congressional Liaison - OLEM/OCPA
(202) 566-2772 - office
(202) 897-9357 - mobile
keller.melanie@epa.gov<mailto:keller.melanie@epa.gov>

PFAS Chemical Curation Workgroup Charter

Executive Summary

This document lays out the charter for a PFAS Chemical List Curation workgroup to be led by ORD NCCT to develop and maintain an authoritative list of per and polyfluoroalkyl Substances (PFAS) chemicals of interest. A regularly reviewed and updated list would benefit several activities under the PFAS Action Plan. One effort involves the development of a data inventory that seeks to provide pathways for entry of PFAS data into existing national data systems, and the related effort is the development of PFAS Analytic Tools that provide integration, visualization and analysis capabilities for PFAS data. This document describes the current gaps and information needs for the tools, for which NCCT will provide critical expertise and support.

Background

The PFAS Analytic Tools and PFAS Data Inventory are part of the U.S. Environmental Protection Agency's (EPA) cross-agency effort to address PFAS and EPA's PFAS Action Plan. The Tools consist of mapping and data analysis tools which combine and visualize national data sets containing PFAS records. In coordination with states, the tools are intended to assemble all readily available information related to PFAS production, handling, release and ambient testing, and to provide states, tribes, federal partners, and communities with critical information and tools to better understand PFAS occurrence and to support development of responses at the local, state, and national level. In developing the Tools, stakeholders have expressed a strong interest in more organizations of PFAS chemical lists – which often differ across data systems.

Charter

1. Lead the curation of lists of PFAS chemicals

For numerous analyses and tools, it is important to have a current, relevant, and authoritative list of PFAS chemicals. To that end the Workgroup/NCCT will:

Establish a definition and develop a master list of PFAS chemicals

PFAS Analytic Tools need a list of PFAS chemicals to retrieve records from databases that contain more than just PFAS chemicals. The PFAS Analytic Tools will need a preliminary list by October 16, 2019 and an updated list towards the end of November.

Data systems containing chemical records that are interested in incorporating a PFAS flag would benefit from ready access to an authoritative PFAS list available via web services.

Establish rationale and flags for filtering the master list of PFAS chemicals to operational lists of specific PFAS chemicals of interest

Several stakeholders have noted that the CompTox Master PFAS list of lists is overly inclusive (e.g., inclusion of shorter chain refrigerants). Including additional attributes (e.g., length of carbon chain) would be extremely useful for efforts that want to categorize or exclude PFAS chemicals to meet specific project needs.

Offices and programs may want to establish their own lists, which should be subsets of the Master List and should use common nomenclature and identifiers.

End users will need ready access to authoritative lists. While list development may be carried out by NCCT and other programs, It is believed that publication of current lists may be best serviced by the Substance Registry Services (SRS).

Establish updating procedure

Both the PFAS chemicals being reported and the known universe of PFAS chemicals will change over time. The group must establish a plan for updating the Master List and publishing changes.

2. Lead the standardization of PFAS chemical nomenclature

Different datasets use different names for the same chemicals. CompTox already compiles synonyms for chemicals and selects one name to use. The group will assist in assigning a standardized name for each PFAS chemical and coordinate with SRS on enhancing its services related to PFAS synonyms and groupings.

3. Provide Chemical Curation Communication and Expertise

Lead on developing the documentation and answering questions about the chemicals and how the lists were established and maintained. This work should also provide database owners with updated tables/lists that can be used to facilitate menus within their data systems that allow reporting of those chemicals.

4. Recommend EPA-wide PFAS data lists that should be reported out in Tools

The workgroup is asked to recommend whether specific PFAS chemicals, from the master list, should be omitted from the data portrayed in the PFAS Analytic Tools. This work should be in conjunction with interested stakeholders.

Membership

An initial set of members has been identified based on interest expressed within the PFAS Data Workgroup that was established to oversee the development of the PFAS Analytic Tools. That list has been transferred over to NCCT. Additional members that self-identify should be added when they express interest. This is a collaborative effort that benefits from wide EPA participation across program offices and Regions. The original charter does not envision state representatives as members, but based on need, the workgroup may decide to change that initial decision.

Message

From: Gaines, Linda [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4997AB5B3FB248E2B3DAB289ACD408B1-GAINES, LINDA]
Sent: 6/11/2020 12:25:13 PM
To: Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]; Anderson, RobinM [Anderson.RobinM@epa.gov]
Subject: RE: LCPFC SNUR final at OMB

I fail to see a structural definition of PFAS in there. The passage is also directed at carboxylic acids and sulfonic acids and ignores other types.

Linda G.T. Gaines, Ph.D., P.E., BCEE
Environmental Engineer
U.S. Environmental Protection Agency
OLEM/OSRTI/ARD/Science Policy Branch
Gaines.Linda@epa.gov
Phone: (703) 603-7189

From: Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>
Sent: Thursday, June 11, 2020 6:46 AM
To: Gaines, Linda <Gaines.Linda@epa.gov>; Anderson, RobinM <Anderson.RobinM@epa.gov>
Subject: FW: LCPFC SNUR final at OMB

FYI

From: Libelo, Laurence <Libelo.Laurence@epa.gov>
Sent: Thursday, June 11, 2020 6:29 AM
To: Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>
Subject: LCPFC SNUR final at OMB

FYI- this was drafted 5 year ago and got caught up in the TSCA rewrite in 2016.

It included the structural definition of PFAS.

Natl law review:

On June 3, 2020, the U.S. Environmental Protection Agency (EPA) submitted to the Office of Management and Budget (OMB) a final significant new use rule (SNUR) on long-chain perfluoroalkyl carboxylate (LCPFAC) and perfluoroalkyl sulfonate (PFAS) chemical substances. On March 3, 2020, EPA published a proposed supplemental SNUR for LCPFAC chemical substances that would make inapplicable the exemption for persons who import a subset of LCPFAC chemical substances as part of surface coatings on articles. 85 Fed. Reg. 12479. Under the proposed supplemental SNUR, issued under Section 5(a)(2) of the Toxic Substances Control Act (TSCA), this subset of LCPFAC chemical substances also includes the salts and precursors of these perfluorinated carboxylates. The supplemental proposal would require importers to notify EPA at least 90 days before commencing the import of these chemical substances in certain articles for the significant new use described in the proposed SNUR. The required significant new use notification would initiate EPA's evaluation of the conditions of use associated with the intended significant new use. Manufacturing (including import) or processing for the significant new use would be prohibited from commencing until EPA has conducted a review of the notice,

made an appropriate determination on the notice, and taken such actions as are required in association with that determination. As noted in our February 28, 2020, memorandum, "Proposed Supplemental SNUR Would Remove Exemption for LCPPAC Chemical Substances Used as Surface Coatings on Articles," one of the goals of the proposed supplemental SNUR is to establish the ground rules for EPA's consideration of the article exemption in future SNUR actions. The final SNUR that is under OMB review is not publicly available, so it remains to be seen whether EPA has successfully established policies and procedures that both align with statutory requirements and also are workable, effective, predictable, transparent, and justified scientifically.

Sent from my iPhone

Message

From: Gaines, Linda [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4997AB5B3FB248E2B3DAB289ACD408B1-GAINES, LINDA]
Sent: 11/2/2020 3:25:03 PM
To: Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]
Subject: RE: Please Review
Attachments: ARD comments for OPPT NDAA request 10-28-20_sfj_lgtg.docx

I tried to summarize a few a little.

Linda G.T. Gaines, Ph.D., P.E., BCEE
Environmental Engineer
U.S. Environmental Protection Agency
OLEM/OSRTI/ARD/Science Policy Branch
Gaines.Linda@epa.gov
Phone: (703) 603-7189

From: Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>
Sent: Monday, November 02, 2020 9:35 AM
To: Gaines, Linda <Gaines.Linda@epa.gov>
Subject: Please Review

The attachment and tell me if I've misstated anything. Some people just can't help themselves. Need this am please.

Message

From: Gaines, Linda [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4997AB5B3FB248E2B3DAB289ACD408B1-GAINES, LINDA]
Sent: 4/14/2021 6:13:45 PM
To: Stalcup, Dana [Stalcup.Dana@epa.gov]; Douchand, Larry [Douchand.Larry@epa.gov]; Schutz, Michelle [Schutz.Michelle@epa.gov]; Fitz-James, Schatzi [Fitz-James.Schatzi@epa.gov]; Libelo, Laurence [Libelo.Laurence@epa.gov]; Ammon, Doug [Ammon.Doug@epa.gov]; Lowery, Brigid [Lowery.Brigid@epa.gov]; Barr, Pamela [Barr.Pamela@epa.gov]; Gilbert, Edward [Gilbert.Edward@epa.gov]; Pachon, Carlos [Pachon.Carlos@epa.gov]
Subject: RE: PFAS definition

The 2020 NDAA has about five different definitions for PFAS, which don't exactly mesh. Congress seems to have moved to the 2021 definition. However, previously under the Trump administration, on at least one occasion, we were sent a technical assistance request from Congress on bills being drafted, and I noted at the time that there were problems with the definition. Either my comments were not relayed to Congress, or they were ignored. I have since provided comments to some people in OCIR and OW about this issue, and I noted that other offices surely would have comments on the definition, especially OCSP.

Short version is, what Congress calls a perfluoroalkyl substance is so restrictive that PFOA would not be considered a perfluoroalkyl substance but instead a polyfluoroalkyl substance, even though all scientists would call it a per not poly. Congress ignored the issue of functional groups. Further the rest of the definition is so liberal (vague?) that there are thousands of chemicals that they would call PFAS that I think a lot of scientists would not call PFAS.

Linda G.T. Gaines, Ph.D., P.E., BCEE
Environmental Engineer
U.S. Environmental Protection Agency
OLEM/OSRTI/ARD/Science Policy Branch
Gaines.Linda@epa.gov
Phone: (703) 603-7189

From: Stalcup, Dana <Stalcup.Dana@epa.gov>
Sent: Wednesday, April 14, 2021 1:57 PM
To: Douchand, Larry <Douchand.Larry@epa.gov>; Schutz, Michelle <Schutz.Michelle@epa.gov>; Fitz-James, Schatzi <Fitz-James.Schatzi@epa.gov>; Libelo, Laurence <Libelo.Laurence@epa.gov>; Ammon, Doug <Ammon.Doug@epa.gov>; Gaines, Linda <Gaines.Linda@epa.gov>; Lowery, Brigid <Lowery.Brigid@epa.gov>; Barr, Pamela <Barr.Pamela@epa.gov>; Gilbert, Edward <Gilbert.Edward@epa.gov>; Pachon, Carlos <Pachon.Carlos@epa.gov>
Subject: FW: PFAS definition

Hi there.

During our meeting this morning on options on the NPRM, someone brought up the definition of PFAS in NDAA. I did some quick research and found this:

2021 NDAA:

in this section, the term PFAS means—

- (1) man-made chemicals of which all of the carbon atoms are fully fluorinated carbon atoms; and
- (2) man-made chemicals containing a mix of fully fluorinated carbon atoms, partially fluorinated carbon atoms, and nonfluorinated carbon atoms.

2020 NDAA:

(3) PFAS.--The term "PFAS" means perfluoroalkyl and polyfluoroalkyl substances that are man-made chemicals with at least one fully fluorinated carbon atom.

Not sure what to make of it, but thought it was interesting. Thoughts? - Dana

From: Gaines, Linda [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4997AB5B3FB248E2B3DAB289ACD408B1-GAINES, LINDA]
Sent: 7/22/2019 12:30:53 PM
To: Libelo, Laurence [Libelo.Laurence@epa.gov]; Anderson, RobinM [Anderson.RobinM@epa.gov]
Subject: RE: What is a "pollutant or contaminant"?

ED 006319A 00002393-00001

To: Woolford, James <Woolford.James@epa.gov<mailto:Woolford.James@epa.gov>>; Stalcup, Dana <Stalcup.Dana@epa.gov<mailto:Stalcup.Dana@epa.gov>>
Cc: Lowery, Brigid <Lowery.Brigid@epa.gov<mailto:Lowery.Brigid@epa.gov>>; Healy, Helena <Healy.Helena@epa.gov<mailto:Healy.Helena@epa.gov>>; Hovis, Jennifer <Hovis.Jennifer@epa.gov<mailto:Hovis.Jennifer@epa.gov>>
Subject: Re: FOR RESPONSE by MONDAY COB -- HEC PFAS TA question

+ Jen today
Sent from my iPhone

Melanie C. Keller

Congressional Liaison
Office of Land and Emergency Management
U.S. Environmental Protection Agency

(202) 566-2772 - desk
(202) 897-9357 - mobile

On Jul 19, 2019, at 7:10 AM, Keller, Melanie <Keller.Melanie@epa.gov<mailto:Keller.Melanie@epa.gov>> wrote:
Good morning,

HEC has raised the following question about PFAS as a "pollutant or contaminant" under CERCLA 101 (33).

Is OSRTI the best office to handle this question, or is it another OLEM office? Also, if we're getting into statutory definitions, my gut says we pull in OGC too. Thoughts???

This isn't "urgent" per se, but we need to keep this moving because there is a slim possibility that meetings to resolve the NDAA bills may occur before the August recess (begins July 27).

QUESTION:

Does the Agency consider one or more PFAS substances a "pollutant or contaminant" as defined in section 101(33) of CERCLA? If so, which PFAS substances does the Agency consider to meet this definition?

Thank you for your time and response,
Melanie

Melanie C. Keller
US Environmental Protection Agency
Congressional Liaison - OLEM/OCPA
(202) 566-2772 - office
(202) 897-9357 - mobile
keller.melanie@epa.gov<mailto:keller.melanie@epa.gov>

Message

From: Schechter, Kathryn [Schechter.Kathryn@epa.gov]
Sent: 10/21/2020 11:16:42 AM
To: Henry, Tala [Henry.Tala@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Lee, Virginia [Lee.Virginia@epa.gov]
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Sorry, sent it on the CBI side....

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Tuesday, October 20, 2020 6:10 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA
Importance: High

Thanks for this so quickly.
Still need the list of chemicals we are thinking to be subject to the Section 8 rule...for the PFAS Coordinating Committee...

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Tuesday, October 20, 2020 3:43 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Here is what I have. Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition. I put it all into a spreadsheet for everyone to review.

As for the ones that do not have CAS numbers, I may not be able to say much about them as they may be on the confidential inventory. Looks like they are byproducts...

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)

1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, October 20, 2020 1:31 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Hi Kathy,
First off, I'm sorry I missed you last week as I started taking over some of Hannah's responsibilities for the 8(a) data call. I'm looking forward to working with you more closely over the next few months!

If you haven't already received it, here is the section 21 petition for 54 PFAS. Would you be able to confirm if these are all included on the data call's list so far? I believe Tala was also interested in knowing their Inventory active/inactive statuses.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Thursday, October 15, 2020 12:27 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Steph, as mentioned, here's the citizen petition that lists the 54 PFAS chemicals that they're demanding test rules for. It would be good to crosswalk this w/our PFAS 8a rule definition scope to make sure these 54 PFAS are included.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 10:34 AM
To: Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Here you go.

Madison H. Le
Division Director
USEPA/OCSP/OPPT

Direct: 202-564-5754

Cell: Ex. 6 Personal Privacy (PP)

From: Lee, Virginia <Lee.Virginia@epa.gov>

Sent: Wednesday, October 14, 2020 9:36 AM

To: Le, Madison <Le.Madison@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>

Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Madison, could you send the petition attachment? Thank you!

Virginia Lee

Associate Chief

Chemical Information and Testing Branch

U.S. Environmental Protection Agency

Office of Pollution Prevention and Toxics

Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>

Sent: Wednesday, October 14, 2020 8:11 AM

To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>

Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>

Subject: Fwd: Petition to Require Testing on PFAS Under Section 21 of TSCA

FYI

Sent from my iPhone

Begin forwarded message:

From: "Dunn, Alexandra" <dunn.alexandra@epa.gov>

Date: October 14, 2020 at 7:55:54 AM EDT

To: "Fischer, David" <Fischer.David@epa.gov>, "Collazo Reyes, Yvette" <CollazoReyes.Yvette@epa.gov>, "Henry, Tala" <Henry.Tala@epa.gov>, "Le, Madison" <Le.Madison@epa.gov>, "Canavan, Sheila" <Canavan.Sheila@epa.gov>, "Dennis, Allison" <Dennis.Allison@epa.gov>, "Dunton, Cheryl" <Dunton.Cheryl@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Please work on a desk statement as we will get questions on this today.

Alexandra Dapolito Dunn, Esq.

Assistant Administrator

Office of Chemical Safety and Pollution Prevention

US Environmental Protection Agency

Washington, DC

From: bobsussman1@ Ex. 6 Personal Privacy (PP)

Sent: Wednesday, October 14, 2020 7:35 AM

To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Fischer, David <Fischer.David@epa.gov>; Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>; Henry,

Tala <Henry.Tala@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Canavan, Sheila
<Canavan.Sheila@epa.gov>

Cc: 'Thomas Fox' <tom@ceh.org>; 'Andrea Braswell' <Andrea@ceh.org>

Subject: Petition to Require Testing on PFAS Under Section 21 of TSCA

Dear EPA Administrator Wheeler:

I am enclosing a petition under section 21 of the Toxic Substances Control Act (TSCA) by six public health and environmental justice organizations in North Carolina: Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, NC Black Alliance, Democracy Green and Toxic Free NC. The petition requests that the Environmental Protection Agency (EPA) require health and environmental effects testing on 54 Per- and Polyfluoroalkyl Substances (PFAS) manufactured by The Chemours Company (Chemours) at its chemical production facility in Fayetteville, North Carolina. The petition seeks issuance of a rule or order under section 4 of TSCA compelling Chemours to fund and carry out this testing under the direction of a panel of independent scientists. The 54 PFAS have been found in human blood, drinking water, groundwater, soil, air, and locally produced food adjacent to and downstream of the Fayetteville plant as a result of emissions and discharges spanning decades. Despite this extensive exposure, little testing has been conducted on the 54 PFAS and Cape Fear communities lack information on the health impacts to which they and their families have been subjected. As demonstrated in the petition, the 54 PFAS meet the criteria for testing in section 4(a) of TSCA.

PFAS “forever chemicals” are a large group of nearly 5,000 synthetic chemicals that are readily transported around the globe and build up in people and wildlife. These chemicals take thousands of years to break down in the environment and can remain in our bodies for decades. Certain PFAS are pervasive in the blood of the US population. The enclosed petition builds on existing scientific understanding of the properties of PFAS as a class by proposing that the 54 PFAS produced by Chemours be tested for the adverse health and environmental effects that have been linked to well-studied class members, such as PFOA and PFOS. These end-points include cancer, thyroid disease, birth defects, hormone disruption, decreased fertility, immune system suppression. The proposed testing includes studies in laboratory animals as well as research into the relationship between health outcomes and PFAS exposure among people in Cape Fear communities. Studies to determine effects on fish and how the PFAS behave in the environment would also be conducted.

While the proposed testing is critical to understand the health and environmental impacts of these PFAS on Cape Fear communities, it should not delay essential steps to phase out manufacture and use of PFAS in North Carolina and the entire US based on the demonstrated characteristics of the PFAS class. Nor should it delay implementation of measures now in place to restrict or eliminate environmental releases from the Chemours facility.

We look forward to the Agency’s response to the petition and plan to follow-up on the petition with your staff.

Respectfully submitted

Robert M. Sussman
Sussman & Associates
3101 Garfield Steet, NW
Washington DC 20008

Ex. 6 Personal Privacy (PP)

Ex. 6 Personal Privacy (PP) (C)

202-758-2227 (O)

Counsel for Petitioners

Message

From: Blair, Susanna [Blair.Susanna@epa.gov]
Sent: 10/21/2020 2:12:11 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]
Subject: RE: Meeting Request for Tala

Hey Steph!!

Yes, could you forward to Sharon and Liz! That would be great. Hope you are doing alright!
Susanna

Susanna W. Blair, PhD
Special Assistant/Advisor - Office of Pollution Prevention and Toxics
202.564.4371 (office) | Ex. 6 Personal Privacy (PP) cell) | Blair.susanna@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Wednesday, October 21, 2020 9:48 AM
To: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: Meeting Request for Tala

Hi Alison & Susanna,
Tala wants to meet with me, Virginia, and Kathy regarding the attached file (overlap b/w the section 21 PFAS & those in the data call rule).
I think tomorrow at 9:30 may be the best time. I'm happy to send the request to Sharon & Liz, but wanted to give you a heads-up – let me know if you want me to forward this to them.

Thanks!

Stephanie Griffin
(202) 564-1463

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Wednesday, October 21, 2020 8:57 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

I have some questions about the TSCA status columns...can you guys look for a half hour to discuss? (today is almost solidly booked for me, but maybe tomorrow...OR we could meet before or after the Sect 21 meeting tomorrow, I am free then

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Tuesday, October 20, 2020 3:43 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>

Cc: Lee, Virginia <Lee.Virginia@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Here is what I have. Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition. I put it all into a spreadsheet for everyone to review.

As for the ones that do not have CAS numbers, I may not be able to say much about them as they may be on the confidential inventory. Looks like they are byproducts...

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Tuesday, October 20, 2020 1:31 PM

To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Hi Kathy,

First off, I'm sorry I missed you last week as I started taking over some of Hannah's responsibilities for the 8(a) data call. I'm looking forward to working with you more closely over the next few months!

If you haven't already received it, here is the section 21 petition for 54 PFAS. Would you be able to confirm if these are all included on the data call's list so far? I believe Tala was also interested in knowing their Inventory active/inactive statuses.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Lee, Virginia <Lee.Virginia@epa.gov>

Sent: Thursday, October 15, 2020 12:27 PM

To: Griffin, Stephanie <griffin.stephanie@epa.gov>

Cc: Turk, David <Turk.David@epa.gov>

Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Steph, as mentioned, here's the citizen petition that lists the 54 PFAS chemicals that they're demanding test rules for. It would be good to crosswalk this w/our PFAS 8a rule definition scope to make sure these 54 PFAS are included.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics

Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>

Sent: Wednesday, October 14, 2020 10:34 AM

To: Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>

Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Here you go.

Madison H. Le

Division Director

USEPA/OCSP/OPPT

Direct: 202-564-5754

Cell: Ex. 6 Personal Privacy (PP)

From: Lee, Virginia <Lee.Virginia@epa.gov>

Sent: Wednesday, October 14, 2020 9:36 AM

To: Le, Madison <Le.Madison@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>

Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Madison, could you send the petition attachment? Thank you!

Virginia Lee

Associate Chief

Chemical Information and Testing Branch

U.S. Environmental Protection Agency

Office of Pollution Prevention and Toxics

Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>

Sent: Wednesday, October 14, 2020 8:11 AM

To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>

Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>

Subject: Fwd: Petition to Require Testing on PFAS Under Section 21 of TSCA

FYI

Sent from my iPhone

Begin forwarded message:

From: "Dunn, Alexandra" <dunn.alexandra@epa.gov>

Date: October 14, 2020 at 7:55:54 AM EDT

To: "Fischer, David" <Fischer.David@epa.gov>, "Collazo Reyes, Yvette" <CollazoReyes.Yvette@epa.gov>, "Henry, Tala" <Henry.Tala@epa.gov>, "Le, Madison" <Le.Madison@epa.gov>, "Canavan, Sheila" <Canavan.Sheila@epa.gov>, "Dennis, Allison" <Dennis.Allison@epa.gov>, "Dunton, Cheryl" <Dunton.Cheryl@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Please work on a desk statement as we will get questions on this today.

Alexandra Dapolito Dunn, Esq.
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
US Environmental Protection Agency
Washington, DC

From: bobsussman1 **Ex. 6 Personal Privacy (PP)**
Sent: Wednesday, October 14, 2020 7:35 AM
To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Fischer, David <Fischer.David@epa.gov>; Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>
Cc: 'Thomas Fox' <tom@ceh.org>; 'Andrea Braswell' <Andrea@ceh.org>
Subject: Petition to Require Testing on PFAS Under Section 21 of TSCA

Dear EPA Administrator Wheeler:

I am enclosing a petition under section 21 of the Toxic Substances Control Act (TSCA) by six public health and environmental justice organizations in North Carolina: Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, NC Black Alliance, Democracy Green and Toxic Free NC. The petition requests that the Environmental Protection Agency (EPA) require health and environmental effects testing on 54 Per- and Polyfluoroalkyl Substances (PFAS) manufactured by The Chemours Company (Chemours) at its chemical production facility in Fayetteville, North Carolina. The petition seeks issuance of a rule or order under section 4 of TSCA compelling Chemours to fund and carry out this testing under the direction of a panel of independent scientists. The 54 PFAS have been found in human blood, drinking water, groundwater, soil, air, and locally produced food adjacent to and downstream of the Fayetteville plant as a result of emissions and discharges spanning decades. Despite this extensive exposure, little testing has been conducted on the 54 PFAS and Cape Fear communities lack information on the health impacts to which they and their families have been subjected. As demonstrated in the petition, the 54 PFAS meet the criteria for testing in section 4(a) of TSCA.

PFAS “forever chemicals” are a large group of nearly 5,000 synthetic chemicals that are readily transported around the globe and build up in people and wildlife. These chemicals take thousands of years to break down in the environment and can remain in our bodies for decades. Certain PFAS are pervasive in the blood of the US population. The enclosed petition builds on existing scientific understanding of the properties of PFAS as a class by proposing that the 54 PFAS produced by Chemours be tested for the adverse health and environmental effects that have been linked to well-studied class members, such as PFOA and PFOS. These end-points include cancer, thyroid disease, birth defects, hormone disruption, decreased fertility, immune system suppression. The proposed testing includes studies in laboratory animals as well as research into the relationship between health outcomes and PFAS exposure among people in Cape Fear communities. Studies to determine effects on fish and how the PFAS behave in the environment would also be conducted.

While the proposed testing is critical to understand the health and environmental impacts of these PFAS on Cape Fear communities, it should not delay essential steps to phase out manufacture and use of PFAS in North Carolina and the entire US based on the demonstrated characteristics of the PFAS class. Nor should it delay implementation of measures now in place to restrict or eliminate environmental releases from the Chemours facility.

We look forward to the Agency's response to the petition and plan to follow-up on the petition with your staff.

Respectfully submitted

Robert M. Sussman
Sussman & Associates
3101 Garfield Steet, NW
Washington DC 20008

Ex. 6 Personal Privacy (PP)

202-758-2227 (O)

Counsel for Petitioners

Message

From: Henry, Tala [Henry.Tala@epa.gov]
Sent: 10/22/2020 2:20:05 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]; Schechter, Kathryn [Schechter.Kathryn@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: Discuss Section 21 petition file
Attachments: section 21 PFAS petition_TH Notes.xlsx

Here is the list with my notes/legend for abbrevs
Also set up for printing all columns on one page

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

Message

From: Lee, Virginia [Lee.Virginia@epa.gov]
Sent: 10/22/2020 5:13:56 PM
To: Henry, Tala [Henry.Tala@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Schechter, Kathryn [Schechter.Kathryn@epa.gov]; Ruedy, Daniel [Ruedy.Daniel@epa.gov]; Turk, David [Turk.David@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: RE: Discuss Section 21 petition file
Attachments: section 21 PFAS petition_TH Notes printable.xlsx

Here's the cleaner version of the list of 54 PFAS from the petition and the TSCA status crosswalk.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Thursday, October 22, 2020 10:20 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: Discuss Section 21 petition file

Here is the list with my notes/legend for abbrevs
Also set up for printing all columns on one page

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 10/29/2020 4:22:49 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Did we end up with an updated count/estimate for the overlap between the 8a and petition?

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Wednesday, October 21, 2020 11:17 AM
To: Turk, David <Turk.David@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

In short: there's not a great overlap from what we can tell. From Kathy earlier:
Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition.

Tomorrow's call with Tala will go over this in more detail. Let me know if you'd like me to forward you the invite in case you want to join.

From: Turk, David <Turk.David@epa.gov>
Sent: Wednesday, October 21, 2020 11:03 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Do we know the intersection between this list and our likely 8a rule list?

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Wednesday, October 21, 2020 9:42 AM
To: Turk, David <Turk.David@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Just as an FYI, Tala wants to meet tomorrow to go over the spreadsheet Kathy produced showing which of the chemicals listed on the section 21 petition are included in the data call or on the Inventory. (attached the sheet)

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Wednesday, October 21, 2020 8:57 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

I have some questions about the TSCA status columns...can you guys look for a half hour to discuss? (today is almost solidly booked for me, but maybe tomorrow...OR we could meet before or after the Sect 21 meeting tomorrow, I am free then

Tala R. Henry, Ph.D.
Deputy Director

Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Sent: Tuesday, October 20, 2020 3:43 PM

To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>

Cc: Lee, Virginia <Lee.Virginia@epa.gov>

Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Here is what I have. Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition. I put it all into a spreadsheet for everyone to review.

As for the ones that do not have CAS numbers, I may not be able to say much about them as they may be on the confidential inventory. Looks like they are byproducts...

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Tuesday, October 20, 2020 1:31 PM

To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Hi Kathy,

First off, I'm sorry I missed you last week as I started taking over some of Hannah's responsibilities for the 8(a) data call. I'm looking forward to working with you more closely over the next few months!

If you haven't already received it, here is the section 21 petition for 54 PFAS. Would you be able to confirm if these are all included on the data call's list so far? I believe Tala was also interested in knowing their Inventory active/inactive statuses.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Lee, Virginia <Lee.Virginia@epa.gov>

Sent: Thursday, October 15, 2020 12:27 PM

To: Griffin, Stephanie <griffin.stephanie@epa.gov>

Cc: Turk, David <Turk.David@epa.gov>

Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Steph, as mentioned, here's the citizen petition that lists the 54 PFAS chemicals that they're demanding test rules for. It would be good to crosswalk this w/our PFAS 8a rule definition scope to make sure these 54 PFAS are included.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 10:34 AM
To: Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Here you go.

Madison H. Le
Division Director
USEPA/OCSP/OPPT
Direct: 202-564-5754
Cell: Ex. 6 Personal Privacy (PP)

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Wednesday, October 14, 2020 9:36 AM
To: Le, Madison <Le.Madison@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Madison, could you send the petition attachment? Thank you!

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 8:11 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: Fwd: Petition to Require Testing on PFAS Under Section 21 of TSCA

FYI

Sent from my iPhone

Begin forwarded message:

From: "Dunn, Alexandra" <dunn.alexandra@epa.gov>
Date: October 14, 2020 at 7:55:54 AM EDT
To: "Fischer, David" <Fischer.David@epa.gov>, "Collazo Reyes, Yvette" <CollazoReyes.Yvette@epa.gov>, "Henry, Tala" <Henry.Tala@epa.gov>, "Le, Madison" <Le.Madison@epa.gov>, "Canavan, Sheila" <Canavan.Sheila@epa.gov>, "Dennis, Allison" <Dennis.Allison@epa.gov>, "Dunton, Cheryl" <Dunton.Cheryl@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Please work on a desk statement as we will get questions on this today.

Alexandra Dapolito Dunn, Esq.
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
US Environmental Protection Agency
Washington, DC

From: bobsussman [Ex. 6 Personal Privacy (PP)]
Sent: Wednesday, October 14, 2020 7:35 AM
To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Fischer, David <Fischer.David@epa.gov>; Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>
Cc: 'Thomas Fox' <tom@ceh.org>; 'Andrea Braswell' <Andrea@ceh.org>
Subject: Petition to Require Testing on PFAS Under Section 21 of TSCA

Dear EPA Administrator Wheeler:

I am enclosing a petition under section 21 of the Toxic Substances Control Act (TSCA) by six public health and environmental justice organizations in North Carolina: Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, NC Black Alliance, Democracy Green and Toxic Free NC. The petition requests that the Environmental Protection Agency (EPA) require health and environmental effects testing on 54 Per- and Polyfluoroalkyl Substances (PFAS) manufactured by The Chemours Company (Chemours) at its chemical production facility in Fayetteville, North Carolina. The petition seeks issuance of a rule or order under section 4 of TSCA compelling Chemours to fund and carry out this testing under the direction of a panel of independent scientists. The 54 PFAS have been found in human blood, drinking water, groundwater, soil, air, and locally produced food adjacent to and downstream of the Fayetteville plant as a result of emissions and discharges spanning decades. Despite this extensive exposure, little testing has been conducted on the 54 PFAS and Cape Fear communities lack information on the health impacts to which they and their families have been subjected. As demonstrated in the petition, the 54 PFAS meet the criteria for testing in section 4(a) of TSCA.

PFAS "forever chemicals" are a large group of nearly 5,000 synthetic chemicals that are readily transported around the globe and build up in people and wildlife. These chemicals take thousands of years to break down in the environment and can remain in our bodies for decades. Certain PFAS are pervasive in the blood of the US population. The enclosed petition builds on existing scientific understanding of the properties of PFAS as a class by proposing that the 54 PFAS produced by Chemours be tested for the adverse health and environmental effects that have been linked to well-studied class members, such as PFOA and PFOS. These end-points include cancer, thyroid disease, birth defects, hormone disruption, decreased fertility, immune system suppression, The proposed testing includes

studies in laboratory animals as well as research into the relationship between health outcomes and PFAS exposure among people in Cape Fear communities. Studies to determine effects on fish and how the PFAS behave in the environment would also be conducted.

While the proposed testing is critical to understand the health and environmental impacts of these PFAS on Cape Fear communities, it should not delay essential steps to phase out manufacture and use of PFAS in North Carolina and the entire US based on the demonstrated characteristics of the PFAS class. Nor should it delay implementation of measures now in place to restrict or eliminate environmental releases from the Chemours facility.

We look forward to the Agency's response to the petition and plan to follow-up on the petition with your staff.

Respectfully submitted

Robert M. Sussman
Sussman & Associates
3101 Garfield Steet, NW
Washington DC 20008

Ex. 6 Personal Privacy (PP)

202-758-2227 (O)

Counsel for Petitioners

Message

From: Schechter, Kathryn [Schechter.Kathryn@epa.gov]
Sent: 11/3/2020 6:22:17 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: PFAS structures
Attachments: PFAS scope_working copy.docx

Updated structures and the structure in the definition (option 4)

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, November 02, 2020 5:36 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: RE: PFAS structures

The most recent version I saw on Teams is in General→_Old→Old: https://teams.microsoft.com/l/file/8CEC4711-4DAB-4133-93F0-27C397B37851?tenantId=88b378b3-6748-4867-acf9-76aacbeca6a7&fileType=docx&objectUrl=https%3A%2F%2Fsepa.sharepoint.com%2Fsites%2FPFASDataCall%2FShared%20Documents%2FGeneral%2F_Old%2FOLD%2FPFAS%20scope_working%20copy.docx&baseUrl=https%3A%2F%2Fsepa.sharepoint.com%2Fsites%2FPFASDataCall&serviceName=teams&threadId=19:0a32a2ed2425406a9ae27bf6daf7f0a8@thread.skype&groupId=b2922ab9-14b4-4617-827c-b89d1420c6dd

Stephanie Griffin
202-564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Monday, November 2, 2020 4:52 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: PFAS structures

I was going to go over our latest version but cannot find it. Can you send me a link?

Thanks.
Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

Appointment

From: Turk, David [Turk.David@epa.gov]
on behalf of Collazo Reyes, Yvette [CollazoReyes.Yvette@epa.gov]
Sent: 11/4/2020 2:47:56 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]

Subject: FW: OPPT Update: Information Gathering
Attachments: OPPT Data Gathering 11-2-20.pptx
Location: Microsoft Teams Meeting

Start: 11/4/2020 3:00:00 PM
End: 11/4/2020 3:30:00 PM
Show Time As: Tentative

Recurrence: Weekly
every 2 week(s) on Wednesday from 10:00 AM to 10:30 AM

-----Original Appointment-----

From: Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>
Sent: Tuesday, September 22, 2020 3:33 PM
To: Collazo Reyes, Yvette; Turk, David; Henry, Tala; Hartman, Mark; Blair, Susanna; Schmit, Ryan; Le, Madison; Lee, Virginia; Canavan, Sheila; Fehrenbacher, Cathy; Eisenreich, Karen; Schappelle, Seema; Vendinello, Lynn; Widawsky, David; Barone, Stan; Reisman, Larry; Tillman, Thomas
Cc: Pierce, Alison; Passe, Loraine; Gillespie, Andrew
Subject: OPPT Update: Information Gathering
When: Wednesday, November 4, 2020 10:00 AM-10:30 AM (UTC-05:00) Eastern Time (US & Canada).
Where: Microsoft Teams Meeting

Join Microsoft Teams Meeting

Ex. 6 Personal Privacy (PP) United States, Washington DC (Toll)

Conference ID: Ex. 6 Personal Privacy (PP)

[Local numbers](#) | [Reset PIN](#) | [Learn more about Teams](#) | [Meeting options](#)

By participating in EPA hosted virtual meetings and events, you are consenting to abide by the agency's terms of use. In addition, you acknowledge that content you post may be collected and used in support of FOIA and eDiscovery activities.

Title of Meeting	OPPT Update: Information Gathering
Date	Recurring Every Other Week
Length	30 minutes
Purpose	To update OPPT OD on information gathering efforts. Meetings with OCSPP IO occur on alternate weeks.
Attendees	Yvette Collazo; Mark Hartman; Tala Henry; Susanna Blair; Ryan Schmit

Madison Le; Virginia Lee; Loraine Passe; Sheila Canavan;
Cathy Fehrenbacher; Karen Eisenreich; Seema Schappelle;
Lynn Vendinello

CC: Alison Pierce

Message

From: Bushman, Daniel [Bushman.Daniel@epa.gov]
Sent: 11/12/2020 4:00:29 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Turk, David [Turk.David@epa.gov]
Subject: RE: Notes from 10/28 meeting for data call
Attachments: PFAS scope_working copy DRB structures.docx

Hi Stephanie,

In the attached I added in my structures, this is still in track changes so the old structures are still there for comparison. Feel free to use mine or the original ones whichever you think look best.

Dan

Daniel R. Bushman, Ph.D.
Petitions Coordinator and Chemical List Manager
Toxics Release Inventory Program
202-566-0743
www.epa.gov/tri/chemicals

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, November 05, 2020 9:27 AM
To: Bushman, Daniel <Bushman.Daniel@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

No problem. Thanks!

From: Bushman, Daniel <Bushman.Daniel@epa.gov>
Sent: Thursday, November 5, 2020 9:25 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

Hi Stephanie,

Is it OK if I get this back to you on Monday? I'm only working until 11:30 today and I'm off Friday.

Dan

Daniel R. Bushman, Ph.D.
Petitions Coordinator and Chemical List Manager
Toxics Release Inventory Program
202-566-0743
www.epa.gov/tri/chemicals

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, November 05, 2020 9:13 AM

To: Bushman, Daniel <Bushman.Daniel@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

Thanks. The 8 structural examples have been updated in the attached file.

Stephanie Griffin
202-564-1463

From: Bushman, Daniel <Bushman.Daniel@epa.gov>
Sent: Tuesday, November 3, 2020 7:49 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

Hi Stephanie,

I can redraw the chemical structures if you would like, just provide me the final list.

Dan

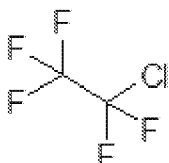
Daniel R. Bushman, Ph.D.
Petitions Coordinator and Chemical List Manager
Toxics Release Inventory Program
202-566-0743
www.epa.gov/tri/chemicals

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, November 02, 2020 11:44 AM
To: Bushman, Daniel <Bushman.Daniel@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

It's currently on the CBI VDI, saved in the G:/PFAS/TSCA 8(a) rule folder. The file name will include the date it was finalized last week (Thursday?).

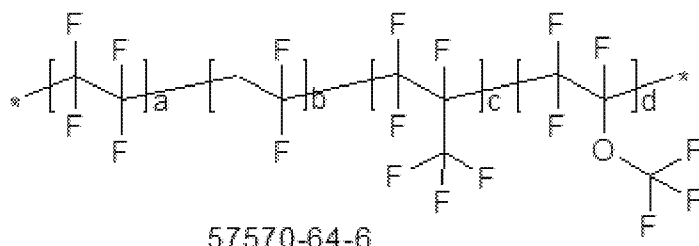
Also, Kathy is currently confirming the structural diagram examples are done/comprehensive to address those we can't list by generic names. She said she'd have them done by today or tomorrow. Would you be able to update the format of the structures once she's confirmed them – like the TRI's list of PFAS? Last I checked, the diagram examples weren't a very long list:

- Halo FC (FC = fluoro carbon; and R, R' and/or R'' = halogen)

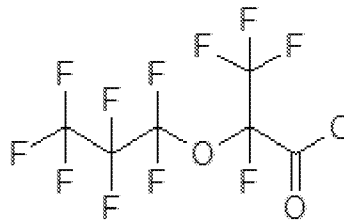
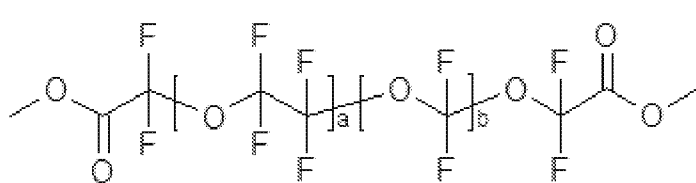


76-15-3

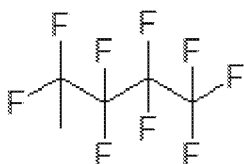
- Fluoro polymer (for example, made from C₂F₄ poly, C₃F₆ poly and/or C₂F₃halo poly)



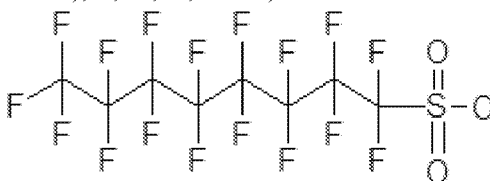
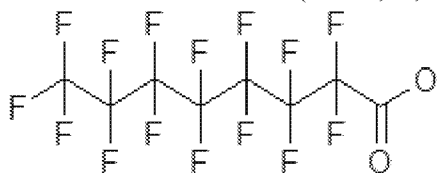
- PF ether/PF ether polymers (PF = perfluoro)



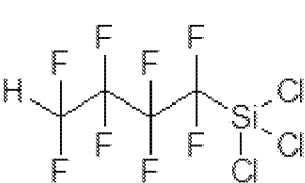
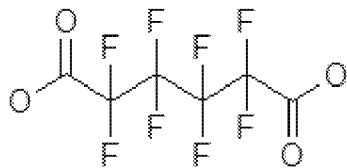
- PFC (PFC = PerFlouroCarbon)



- PFC-R (R = O, N, P, C (not CF2), S, Si, H, metal)



- R-PFC-R (R = O, N, P, C (not CF2), S, Si, H, metal)



Of course, while I'm asking mainly to improve the aesthetics of these examples, if you see any substantive issues with these, or any CBI chemicals that wouldn't be captured by these, please let me/Kathy know!

Thanks--

Stephanie Griffin

From: Bushman, Daniel <Bushman.Daniel@epa.gov>
Sent: Monday, November 2, 2020 11:34 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Notes from 10/28 meeting for data call

Hi Stephanie,

Where can I find the "chemical list for the proposed rule" is it on the one drive location or someplace else?

Dan

Daniel R. Bushman, Ph.D.
Petitions Coordinator and Chemical List Manager
Toxics Release Inventory Program
202-566-0743
www.epa.gov/tri/chemicals

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, October 30, 2020 3:43 PM
To: Lee, Virginia <Lee.Virginia@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Smith, ThomasA <smith.thomasa@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>; Ballard, Darryl <Ballard.Darryl@epa.gov>; Gorder, Chris <Gorder.Chris@epa.gov>; Bushman, Daniel <Bushman.Daniel@epa.gov>; Sharkey, Susan <Sharkey.Susan@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Cybulski, Walter <Cybulski.Walter@epa.gov>; Holsinger, Hannah <Holsinger.Hannah@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Barkas, Jessica <barkas.jessica@epa.gov>; Tobias, David <Tobias.David@epa.gov>; Cooperstein, Sharon <Cooperstein.Sharon@epa.gov>; Lan, Alexis <lan.alexis@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Butler, Tristan <Butler.Tristan@epa.gov>; Shortt, Veronica <Shortt.Veronica@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: Notes from 10/28 meeting for data call

Hi everyone,

Notes from this Wednesday's workgroup meeting can be found here:

https://teams.microsoft.com/l/file/C5170FE8-D13A-4677-805F-9132E0CB7B22?tenantId=88b378b3-6748-4867-acf9-76aacbeca6a7&fileType=docx&objectUrl=https%3A%2F%2Ffusepa.sharepoint.com%2Fsites%2FPFASDataCall%2FShared%20Documents%2FGeneral%2FEntire%20Workgroup%2FMeeting%20Notes%2FMeeting%20Notes_10-28-20.docx&baseUrl=https%3A%2F%2Ffusepa.sharepoint.com%2Fsites%2FPFASDataCall&serviceName=teams&threadId=19:0a32a2ed2425406a9ae27bf6daf7f0a8@thread.skype&groupId=b2922ab9-14b4-4617-827c-b89d1420c6dd

Some updates since Wednesday:

- The chemical list for the proposed rule is frozen for now (but will be updated before the final rule).
- The data elements for the proposed rule are also final (see updated spreadsheet in Teams, with today's date in the file name).

As a reminder, this next month will find us busy preparing the NPRM package to provide to OPPT/OCSP management and then send over to OMB. Thanks in advance for providing help with the preamble and the ICR materials. Please let me know if you have any concerns or questions!

Stephanie Griffin

Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
griffin.stephanie@epa.gov

Message

From: Cooperstein, Sharon [Cooperstein.Sharon@epa.gov]
Sent: 11/25/2020 8:52:21 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: For Workgroup Review/Closure: PFAS data call NPRM
Attachments: 8a PFAS rule NPRM_for workgroup closure_11-13-20_SEC.docx

Hi Stephanie- My apologies- I didn't have time to take a look at this during the review period you provided. Just a couple of comments on the FRN.

Can you share the EA when it's ready?

Thanks,
Sharon

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, November 20, 2020 5:50 PM
To: Raffaele, Kathleen <raffaele.kathleen@epa.gov>; Foster, Stiven <Foster.Stiven@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Smith, ThomasA <smith.thomasa@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>; Ballard, Darryl <Ballard.Darryl@epa.gov>; Gorder, Chris <Gorder.Chris@epa.gov>; Bushman, Daniel <Bushman.Daniel@epa.gov>; Sharkey, Susan <Sharkey.Susan@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Cybulski, Walter <Cybulski.Walter@epa.gov>; Holsinger, Hannah <Holsinger.Hannah@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Barkas, Jessica <barkas.jessica@epa.gov>; Tobias, David <Tobias.David@epa.gov>; Cooperstein, Sharon <Cooperstein.Sharon@epa.gov>; Lan, Alexis <lan.alexis@epa.gov>; Butler, Tristan <Butler.Tristan@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: RE: For Workgroup Review/Closure: PFAS data call NPRM

Hi everyone,

Thanks for all the comments and helpful reviews over the week. Some status updates:

- Workgroup closure is done for this proposed rule. You'll notice I archived the workgroup review file in Teams. Tala had asked that she get a courtesy copy of the FRN draft, so I sent her a clean version of the file around 5pm today (uploaded in Teams). Also, I noticed the monthly check-in with Tala is scheduled for this Tuesday, and since she has a copy of the FRN now, I'm not sure if she'll still want to meet then.
- Over the next week, we'll have to finish compiling the rest of the rulemaking package to submit for OPPT/OCSP management review before they send to OMB. This will include the usual materials like the EA and ICR package, and some other supporting materials referenced in the preamble.
- I submitted the FRN for typesetting this evening (if management has any edits, I can incorporate them after typesetting). Once that's returned, I'll add the typeset file to the rulemaking package.

Next week I'll be off on Wednesday, so we won't be having our biweekly workgroup meeting. Please let me know if you have any questions. Enjoy your weekend!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Griffin, Stephanie

Sent: Friday, November 13, 2020 4:37 PM

To: Raffaele, Kathleen <raffaele.kathleen@epa.gov>; Foster, Stiven <Foster.Stiven@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Smith, ThomasA <smith.thomasa@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>; Ballard, Darryl <Ballard.Darryl@epa.gov>; Gorder, Chris <Gorder.Chris@epa.gov>; Bushman, Daniel <Bushman.Daniel@epa.gov>; Sharkey, Susan <Sharkey.Susan@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Cybulski, Walter <Cybulski.Walter@epa.gov>; Holsinger, Hannah <Holsinger.Hannah@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Barkas, Jessica <barkas.jessica@epa.gov>; Tobias, David <Tobias.David@epa.gov>; Cooperstein, Sharon <Cooperstein.Sharon@epa.gov>; Lan, Alexis <lan.alexis@epa.gov>; Butler, Tristan <Butler.Tristan@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: For Workgroup Review/Closure: PFAS data call NPRM

Hi all,

In Teams, I've uploaded a clean(er) copy of the [NPRM for workgroup review/closure](#). Please review & provide any comments or edits by **COB Friday, Nov. 20**. As a reminder, since this is a Tier 3 rule, a workgroup-level approval is all that's needed from my end, though I understand some offices may have different policies and want management to review at this level. If you don't think you'll be able to respond by the end of next week, please let me know asap.

This will go to typesetting after workgroup closure, so don't worry about formatting issues in this file. For the previous working version, I've archived that in the Teams _Old folder – please don't make any more edits to that file.

Some items that I've left highlighted to be filled in later:

- Economic/burden info
- ICR Number

There are also some remaining questions on some of the reg text related to CBI claims, and I'll follow up with Jessica and Stephanie separately on those.

Thanks, and have a good weekend!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Henry, Tala [Henry.Tala@epa.gov]
Sent: 11/29/2020 9:19:47 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Turk, David [Turk.David@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Tillman, Thomas [Tillman.Thomas@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: RE: For Tala: PFAS 8a rule NPRM Draft
Attachments: PFAS 8a NPRM_11-20-2020_for Tala_TH Comments.docx

Importance: High
Flag: Follow up

Here are my initial comments.

Ex. 5 Deliberative Process (DP)

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, November 20, 2020 5:02 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: For Tala: PFAS 8a rule NPRM Draft

Hi Tala,
Attached is a clean copy of the NPRM draft. Workgroup closure finished today, and OGC has signed off on this draft.

The workgroup has a monthly check-in with you on Tuesday 11/24. Would you like to cancel/reschedule this month's meeting?

Separately, I'll be submitting this for typesetting & continuing to finish the other supporting materials to send the proposed rule package up for management review & to OMB. ADP Tracker currently has OD sign-off for OMB review by 12/8, and OCSPP review & sending to OMB by 12/28. (If you have any edits to the NPRM, I can easily incorporate after typesetting.)

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Pierce, Alison [Pierce.Alison@epa.gov]
Sent: 12/2/2020 3:53:45 PM
To: Turk, David [Turk.David@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: Do either of you have a few minutes to chat this afternoon about 8(a)?
Attachments: 11.10 - OD Presentation for RDD Meeting - November 2020 - FINAL with Notes.pptx

Yvette, Mark and Tala are meeting with ABA on Thursday, and the group submitted the below question early:

6. According to the Regulatory Agenda, EPA is developing a rulemaking under section 8(a) to add certain chemicals that are on the TSCA Work Plan to the Chemical-Specific Reporting and Recordkeeping rules in 40 CFR part 704. Could you explain this proposal and indicate its timing?

We're pulling together some backpocket talking points for Yvette to have on hand - and while I have that helpful slide you guys did for the RDD meeting not too long ago (attached, slide 10), I also want to make sure that whatever we say is okay to say publicly (rather than what we'd share with an EPA internal audience). Do you guys have any tweaks that you'd suggest given the question below/the audience?

We'll remove the regional specific mentions, of course – I just wasn't sure we'd be ready to tip our hand yet publicly about some of the other elements we're working on/through if it's premature.

Alison Pierce
202.564.2437 (office) | pierce.alison@epa.gov

TSCA Update

Regional Division Director's Meeting

Yvette T. Collazo
Office Director
Office of Pollution Prevention and Toxics

November 18, 2020

U.S. Environmental Protection Agency

Good afternoon, everyone. It is a pleasure to be here today.

As you may know, I joined the Office of Pollution Prevention and Toxics as its new director this Spring. Unfortunately, given the times, I am not able to meet with you in person – but I look forward to hearing from you now and in the future.

Thank you for requesting an update on the implementation of the Toxic Substances Control Act – I'll do my best to give you a quick update there, and to touch very briefly on some of the other specific topics you requested on risk management; the TRI National Analysis; and our PFAS 8(a) rule under development.

Existing Chemicals

Assessment to Action

Prioritization

- 20 Highs (December 2019)
- 20 Lows (February 2020)

Assessment

- Risk Evaluations
 - Status of Initial 10
 - 20 High-priority
 - Scopes and Initial List of Manufacturers Subject to Fees released in September
 - Manufacturer-Requested

Action

- Risk Management in 2020
 - Must begin immediately after final risk evaluation if unreasonable risks identified for any conditions of use

So let me start with where we are on our assessment of existing chemicals.

We have and continue to make great progress on our risk evaluations. As most of you already know, EPA has finalized 4 risk evaluations under TSCA, and we're on track complete the remaining 6 of our "first ten" by the end of the year.

Because these documents will guide our future risk management actions, the agency is taking the time necessary to ensure they are high quality, reflect the best available science, and meet the necessary requirements under TSCA.

When Mark Hartman spoke to you all earlier this year, we were just finishing up some of our prioritization steps to identify the next set of chemicals for risk evaluation under TSCA. For the 20 high priority chemicals we identified back in December, we released both the scopes and an initial list of manufacturers subject to fees this September.

In addition to the first ten and 20 high priority, EPA is also dealing with manufacturer requested risk evaluations. To date, EPA has granted requests for two phthalates and one additional chemical, D4.

Following our assessment of these chemicals, we move to action.

Risk Management Requirements

- Under TSCA, EPA is required to take action to address chemicals that pose unreasonable risks to human health or the environment
- EPA must issue a TSCA section 6(a) rule following risk evaluation to address all identified unreasonable risks within two years:
 - Proposed rule one year after risk evaluation
 - Final rule two years after risk evaluation
- Required under TSCA to address all unreasonable risks
- Specific requirements on consideration of alternatives, selecting among options and statement of effects apply to risk management rules
- Input from all stakeholders is critical to the process, including but not limited to agency workgroups, small businesses, chemical users, NGOs, etc.
- Final risk evaluations published for methylene chloride, 1-bromopropane, HBCD, and carbon tetrachloride. All identified unreasonable risks.
- Six more risk evaluations in final stages of completion.
- Aggressive rulemaking timelines

In terms of action, EPA must immediately move to risk management after a final risk evaluation is issued if unreasonable risks are identified for any conditions of use.

As you can see from this slide, there are some aggressive rulemaking timelines that we have to contend with – and EPA must propose a rule within one year of a final risk evaluation and finalize a rule within two.

We've begun our work to gear up on the risk management activities for methylene chloride, 1-bp, HBCD, and carbon tet – and as I mentioned earlier, we have another six risk evaluations which will be finalized soon, which may require their own rule making activities.

Regional Engagement in Risk Management

- Given the aggressive timelines for rulemaking, OPPT is, by necessity, leading change in how this work is done.
- Stakeholder engagement is a critical element of the effort, to ensure any future regulations are based on timely information and are practical and implementable.
- Regions can play a role in helping identify stakeholders and in amplifying our outreach, e.g., to the environmental justice community.
 - Formal consultations are ongoing for Federalism, Tribal governments, small businesses, and EJ
 - We routinely meet with interested stakeholders from industry and NGOs
- Regions may also choose to have staff participate in rulemaking workgroups
 - Workgroups are operating under tight timelines
- Contact ECRMD for more information.

4

Addressing the unreasonable risks we've found in some chemicals is going to be a difficult process, and we know that we need input, expertise, and feedback from stakeholders now – early in the process – to help shape the path forward.

There will be several opportunities for us to gain this input, including public comment periods, webinars and required consultations with state and local governments, tribes, environmental justice communities, and small businesses. For example, we recently held public webinars on the first two final risk evaluations to educate stakeholders and get initial feedback on the risk management process. Our third webinar, on HBCD, will occur next week.

During these engagements, participants will have the opportunity to provide input on potential risk management approaches, their effectiveness, and any impacts those approaches might have on businesses.

We will also hold one-on-one meetings with stakeholders as requested.

The goal is to end up with a path forward that mitigates risks and meets the needs of everyone involved in a thoughtful way.

This slide notes some of the areas where regions can play a role in this process if they so choose – including helping us identify stakeholders; amplifying our outreach; or participating in our rulemaking workgroups.

If you or your staff are interested, please contact our Existing Chemicals Risk Management Division for more information.

Other Actions

PBT Rules

- Proposed rule covering all five PBTs was signed statutory deadline of June 22, 2019
- Each PBT will have its own final action which we are aiming to finalize later this year.

Lead Rules

- Revised Dust Lead Hazard Standards
 - Finalized July 2019
- Revised Dust Lead Clearance Levels
 - Proposed Rule published in June, working to finalize the Rule shortly
- Thank you for significant regional work for the lead-based paint program

This slide is just a quick acknowledgement of some of the other pending rules that you may have interest in – and that we’re working to finalize in 2020.

For PBTs, each of the five persistent bioaccumulative toxic chemicals that were identified for expedited action in 2016 (DecaBDE, PIP 3:1; TTBP; HCBP and PCTP) will have its own final action later this year.

For lead, in June we released a proposal to reduce the amount of lead that can remain in dust on floors and windowsills after lead removal activities to better protect children from the harmful effects of lead exposure.

The proposed, tighter standards would increase the effectiveness of work done to remove lead-based paint hazards in pre-1978 homes and childcare facilities and lower the risk of lead exposure by ensuring that lead-based paint hazards are effectively and permanently eliminated following completion of the work.

We’re working hard to finalize that rule by the end of the year.

I’ll leave it there – as Brian Symmes will give you deeper dive on lead later this afternoon in a separate session.

RY 2019 TRI National Analysis

- Production-related waste managed decreased 3% from 2018-2019
- Total disposal or other releases decreased 9% from 2018-2019 to 3.4 billion lb
- New this year:
 - Profile of fabricated metals manufacturing sector
 - Infographic illustrating how TRI fits into the larger picture of EPCRA
 - Comparative analysis of impact of late filers and revisions
 - Expanded regional breakdown of national data (next slide)

Moving on from TSCA to the Emergency Planning and Community Right to Know Act, I wanted to give you a quick teaser of some of what we're expecting for the Reporting Year 2019 National Analysis, which will be released early next year.

OPPT is still working through the data, and our initial findings are based off of preliminary data from September – so please note that some of what I relay may change slightly in the final National Analysis dataset.

The forecast so far: production-related waste is down. 89% of production-related waste managed was not released to the environment due to preferred waste management practices – nationally, the percent of production related waste that is recycled continues to increase.

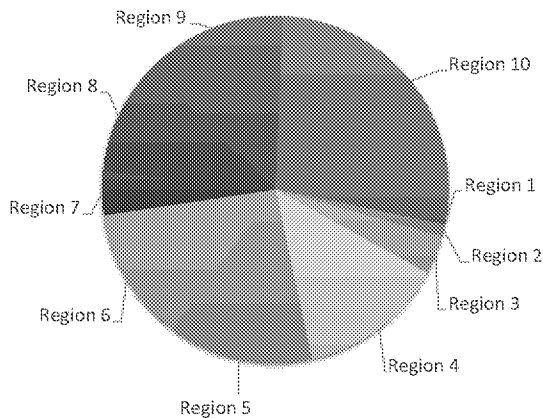
Total disposal (or other releases) are also down – for reporting year 2019, they went down by about 9%.

The hand-out provided will give you more early details on both of these findings.

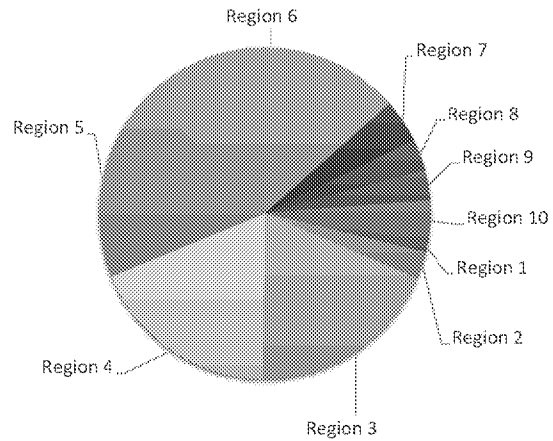
I'd also be remiss if I didn't let you know that OPPT continues to work to improve the analysis itself. This year we have a number of new features that we are hoping to roll out, including an expanded regional breakdown of national data.

2019 NA – Regional Comparison of National Data

Releases by Region, 2019



Production-Related Waste by Region, 2019



New regional comparison added to landing page for regional profiles section of the 2019 National Analysis

Here's a teaser of that regional comparison that I just mentioned.

The differences in leading regions between the two pie charts is largely explained by the types of industry located in each region. For example:

In Regions 8, 9 and 10, metal mines accounted for more releases than any other sector. Metal mines tend to have high releases due to the large quantities of metals disposed on-site to land. For quantities of waste managed through treatment, energy recovery and recycling, metal mines rank lower than almost all other sectors, resulting in lower production-related waste in regions with a lot of metal mining operations.

Region 6 had the highest quantity of production-related waste managed, driven by facilities in the chemical manufacturing sector treating chemicals on site, such as ethylene and propylene.

Regional Support for 2019 National Analysis Publication

- Assistance with data quality calls to facilities (all)
- Participation on National Analysis workgroup by regional coordinators (R5 and R8)
- Support in development of Spanish search tool on TRI homepage (R4)
- Review of each regional profile for inclusion in NA website (all)
- Assistance in planning communications roll out activities which could include developing regionally-specific press releases and planning/executing regional media calls or events. (all)

Most importantly, I did want to share this slide forecasting how the regions can continue to help us with the release of the 2019 National Analysis Publication.

This slide goes over some of the key activities that regions can engage in to help us this year.

Of note - we don't know yet what a new administration will want to do in terms of communicating out the results of the analysis – but that would very likely include your team again.

PFAS

- NDAA
 - NDAA automatically added 172 PFAS to the TRI
 - Section 8 rule for PFAS data required by January 2023
- Long chain PFAS Significant New Use Rule
 - Signed June 2020
 - To account for articles provision in TSCA, the final rule requires review for new or phased out uses that could otherwise begin without review/restrictions
 - Supplemental Guidance on Surface Coatings
- New Chemicals Program
 - Review and restrictions to address any unreasonable risk for new PFAS

PFAS is of course one of the “hot” environmental issues right now, and we continue to get questions from our regional partners about our actions in this space.

The Agency has put together a comprehensive PFAS Action Plan, which draws on all our programs and authorities to address this chemical in a variety of environmental media and settings. So let me talk a little bit about what OPPT is doing as a part of that effort by highlighting two of the actions on this slide.

Under the National Defense Authorization Act, OPPT immediately added 172 chemicals to the TRI. Information we receive on those chemicals will be included in the TRI 2020 National Analysis – which will be published in early 2022. We also continue to review CBI chemicals from the NDAA and ANPRM for potential addition to TRI.

In June we took action to minimize certain long-chain PFAS chemicals which persist in the environment and can cause adverse health effects.

Our final rule restricts manufacturing, importation, production or sale of products that could contain certain PFAS chemicals unless EPA reviews and approves the use or puts in place the necessary restrictions to address any unreasonable risks.

This action also levels the playing field for companies that have already voluntarily phased-out the use of long-chain PFAS chemicals under EPA’s PFOA Stewardship Program by preventing new uses of these phased-out chemicals from starting up again.

Before this action, the use of these PFAS could have started again at any time without EPA’s approval.

We are additionally working on issuing draft guidance for public comment on surface coatings relating to the final rule, including clarification on what constitutes a surface coating under the rule.

TSCA Section 8(a)(7) PFAS Data Call

- EPA must finalize a rule by January 1, 2023 to require manufacturers (including importers) of PFAS in any year since January 1, 2011 to submit a report to EPA containing certain information for each year since January 1, 2011
- The scope of PFAS for this rulemaking will be presented as a list and as a definition with structural examples in order to capture any PFAS without specific chemical identities.
- Rule will collect data on amounts manufactured or processed, descriptions of byproducts, all *existing* info on environmental and health effects, worker exposure, disposal, among other data elements.

I was asked to speak to you about one PFAS action in particular – the Section 8 rule for PFAS data.

As mentioned on the last slide, the NDAA modified TSCA to include a mandate – and EPA must finalize a rule by 2023 for manufacturers (including importers) of PFAS to submit certain information to EPA.

The NDAA broadly described PFAS; EPA is interpreting PFAS to determine scope of universe to propose for the data call.

The scope of data collection resembles CDR reporting with added data elements – such as the maximum amount of the PFAS onsite during the reporting year.

Regions have the opportunity to provide input throughout the rulemaking process and would have access to data collected following its finalization



Pollution Prevention (P2)

- FY 20-21 P2 STAG grants
 - 42 grants across 39 states.
- FY 20-21 Source Reduction Assistance (SRA) grants
 - 11 grants across 9 states
- Both programs require substantial participation from regions – thank you for all your efforts!

This year marks the 30th anniversary of the Pollution Prevention Act.

For the past 30 years, this Agency has partnered with states and tribes through our P2 grants to support U.S. businesses seeking information about P2 and source reduction opportunities. Our grantees have helped thousands of businesses identify, develop, and adopt P2 approaches which have significantly reduced the use and release of hazardous materials into the environment and saved businesses over \$1.5 billion.

We greatly appreciate the sustained regional engagement in our P2 work which has made this possible; our joint efforts have made great strides to stop pollution at its source, resulting in less waste, economic growth, and protection of public health.

I'll leave it there – as David Widawsky will cover P2 in further depth in a session later this afternoon.



Thank You!

Thank you for all the regional engagement in
TSCA, EPCRA, and P2 Act work!

Let me end my remarks with a final note of thanks. The Office of Pollution Prevention and Toxics greatly appreciates regional interest and engagement in our work – and we look forward to our continued partnership going forward.

Message

From: Henry, Tala [Henry.Tala@epa.gov]
Sent: 1/29/2021 2:29:19 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]
Subject: RE: Question from Actg AA on Section 8a7 Rule

Thanks!!

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, January 29, 2021 9:29 AM
To: Henry, Tala <Henry.Tala@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Question from Actg AA on Section 8a7 Rule

Here's the full text from 8(a)(2):

(2) The Administrator may require under paragraph (1) maintenance of records and reporting with respect to the following insofar as known to the person making the report or insofar as reasonably ascertainable:

(A)

The common or trade name, the chemical identity, and the molecular structure of each chemical substance or mixture for which such a report is required.

(B)

The categories or proposed categories of use of each such substance or mixture.

(C)

The total amount of each such substance and mixture manufactured or processed, reasonable estimates of the total amount to be manufactured or processed, the amount manufactured or processed for each of its categories of use, and reasonable estimates of the amount to be manufactured or processed for each of its categories of use or proposed categories of use.

(D)

A description of the byproducts resulting from the manufacture, processing, use, or disposal of each such substance or mixture.

(E)

All existing information concerning the environmental and health effects of such substance or mixture.

(F)

The number of individuals exposed, and reasonable estimates of the number who will be exposed, to such substance or mixture in their places of employment and the duration of such exposure.

(G)

In the initial report under paragraph (1) on such substance or mixture, the manner or method of its disposal, and in any subsequent report on such substance or mixture, any change in such manner or method.

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Friday, January 29, 2021 9:26 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Question from Actg AA on Section 8a7 Rule

Thanks Steph, can you please go grab me a clip of section 8 (A)-(G) also?

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, January 29, 2021 9:15 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Question from Actg AA on Section 8a7 Rule

David's correct – TSCA section 8(a)(7) doesn't define or characterize PFAS other than the time frame. Here's the full text:
(7)PFAS DATA.—

Not later than January 1, 2023, the Administrator shall promulgate a rule in accordance with this subsection requiring each person who has manufactured a chemical substance that is a perfluoroalkyl or polyfluoroalkyl substance in any year since January 1, 2011, to submit to the Administrator a report that includes, for each year since January 1, 2011, the information described in subparagraphs (A) through (G) of paragraph (2).

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Widawsky, David <Widawsky.David@epa.gov>
Sent: Friday, January 29, 2021 9:06 AM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Question from Actg AA on Section 8a7 Rule

My computer is finally grudgingly complying. (23)

You are correct; besides the two handfults of PFAS specifically identified, there seems to be no structural/chemical definition of PFAS. There are a number of references to EPA's discretion in making determinations, through the language of "as determined by the Administrator."

Here is the link to the text of the NDAA: <https://www.congress.gov/bill/116th-congress/senate-bill/1790/text?overview=closed>

A screen shot at the bottom of this shows the relevant titles of the NDAA, including the "PFAS Act."

Here is the text of the NDAA relevant to TRI:

Subtitle B--PFAS Release Disclosure

SEC. 7321. <<NOTE: 15 USC 8921.>> ADDITIONS TO TOXICS RELEASE INVENTORY.

(a) Definition of Toxics Release Inventory.--In this section, the term ``toxics release inventory'' means the list of toxic chemicals subject to the requirements of section 313(c) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(c)).

(b) Immediate Inclusion.--

[[Page 133 STAT. 2278]]

(1) <<NOTE: Effective date.>> In general.--Subject to subsection (e), beginning January 1 of the calendar year following the date of enactment of this Act, the following chemicals shall be deemed to be included in the toxics release inventory:

(A) Perfluorooctanoic acid (commonly referred to as ``PFOA'') (Chemical Abstracts Service No. 335-67-1).

(B) The salts associated with the chemical described in subparagraph (A) (Chemical Abstracts Service Nos. 3825-26-1, 335-95-5, and 68141-02-6).

(C) Perfluorooctane sulfonic acid (commonly referred to as ``PFOS'') (Chemical Abstracts Service No. 1763-23-1).

(D) The salts associated with the chemical described in subparagraph (C) (Chemical Abstracts Service Nos. 2795-39-3, 29457-72-5, 56773-42-3, 29081-56-9, and 70225-14-8).

(E) A perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances that is--

(i) listed as an active chemical substance in the February 2019 update to the inventory under section 8(b)(1) of the Toxic Substances Control Act (15 U.S.C. 2607(b)(1)); and

(ii) on the date of enactment of this Act, subject to the provisions of--

(I) section 721.9582 of title 40, Code of Federal Regulations; or

(II) section 721.10536 of title 40, Code of Federal Regulations.

(F) Hexafluoropropylene oxide dimer acid (commonly referred to as ``GenX'') (Chemical Abstracts Service No. 13252-13-6).

(G) The compound associated with the chemical described in subparagraph (F) identified by Chemical Abstracts Service No. 62037-80-3.

(H) Perfluorononanoic acid (commonly referred to as ``PFNA'') (Chemical Abstracts Service No. 375-95-1).

(I) Perfluorohexanesulfonic acid (commonly referred to as ``PFHxS'') (Chemical Abstracts Service No. 355-46-

4).

(2) Threshold for reporting.--

(A) In general.--Subject to subparagraph (B), the threshold for reporting the chemicals described in paragraph (1) under section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023) is 100 pounds.

(B) <<NOTE: Deadline.>> Revisions.--Not later than 5 years after the date of enactment of this Act, the Administrator shall--

(i) <<NOTE: Determination.>> determine whether revision of the threshold under subparagraph (A) is warranted for any chemical described in paragraph (1); and

(ii) if the Administrator determines a revision to be warranted under clause (i), initiate a revision under section 313(f)(2) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(f)(2)).

(c) Inclusion Following Assessment.--

(1) In general.--

[[Page 133 STAT. 2279]]

(A) <<NOTE: Effective date.>> Date of inclusion.--Subject to subsection (e), notwithstanding section 313 of the Emergency Planning and Community Right-To-Know Act of 1986, a perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances not described in subsection (b)(1) shall be deemed to be included in the toxics release inventory beginning January 1 of the calendar year after any of the following dates:

(i) Final toxicity value.--The date on which the Administrator finalizes a toxicity value for the perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances.

(ii) Significant new use rule.--The date on which the Administrator makes a covered determination for the perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances.

(iii) Addition to existing significant new use rule.--The date on which the perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances is added to a list of substances covered by a covered determination.

(iv) Addition as active chemical substance.--The date on which the perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances to which a covered determination applies is--

(I) added to the list published under paragraph (1) of section 8(b) of the Toxic Substances Control Act and designated as an active chemical substance under paragraph (5)(A) of such section; or

(II) designated as an active chemical substance on such list under paragraph (5)(B) of such section.

(B) Covered determination.--For purposes of this paragraph, a covered determination is a determination made, by rule, under section 5(a)(2) of the Toxic Substances Control Act that a use of a perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances is a significant new use

(except such a determination made in connection with a determination described in section 5(a)(3)(B) or section 5(a)(3)(C) of such Act).

(2) Threshold for reporting.--

(A) In general.--Subject to subparagraph (B), notwithstanding subsection (f)(1) of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023), the threshold for reporting under such section 313 the substances and classes of substances included in the toxics release inventory under paragraph (1) is 100 pounds.

(B) <<NOTE: Deadline.>> Revisions.--Not later than 5 years after the date on which a perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances is included in the toxics release inventory under paragraph (1), the Administrator shall--

(i) <<NOTE: Determination.>> determine whether revision of the threshold under subparagraph (A) is warranted for the substance or class of substances; and

[[Page 133 STAT. 2280]]

(ii) if the Administrator determines a revision to be warranted under clause (i), initiate a revision under section 313(f)(2) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(f)(2)).

(d) Inclusion Following Determination.--

(1) <<NOTE: Deadline.>> In general.--Not later than 2 years after the date of enactment of this Act, the Administrator shall determine whether the substances and classes of substances described in paragraph (2) meet any one of the criteria described in section 313(d)(2) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(d)(2)) for inclusion in the toxics release inventory.

(2) Substances described.--The substances and classes of substances referred to in paragraph (1) are perfluoroalkyl and polyfluoroalkyl substances and classes of perfluoroalkyl and polyfluoroalkyl substances not described in subsection (b)(1), including--

(A) perfluoro[(2-pentafluoroethoxy-ethoxy)acetic acid] ammonium salt (Chemical Abstracts Service No. 908020-52-0);

(B) 2,3,3,3-tetrafluoro 2-(1,1,2,3,3,3-hexafluoro)-2-(trifluoromethoxy) propanoyl fluoride (Chemical Abstracts Service No. 2479-75-6);

(C) 2,3,3,3-tetrafluoro 2-(1,1,2,3,3,3-hexafluoro)-2-(trifluoromethoxy) propionic acid (Chemical Abstracts Service No. 2479-73-4);

(D) 3H-perfluoro-3-[(3-methoxy-propoxy) propanoic acid] (Chemical Abstracts Service No. 919005-14-4);

(E) the salts associated with the chemical described in subparagraph (D) (Chemical Abstracts Service Nos. 958445-44-8, 1087271-46-2, and NOCAS 892452);

(F) 1-octanesulfonic acid 3,3,4,4,5,5,6,6,7,7,8,8-tridecafluoro-potassium salt (Chemical Abstracts Service No. 59587-38-1);

(G) perfluorobutanesulfonic acid (Chemical Abstracts Service No. 375-73-5);

(H) 1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-potassium salt (Chemical Abstracts Service No. 29420-49-3);

(I) the component associated with the chemical described in subparagraph (H) (Chemical Abstracts Service No. 45187-15-3);

(J) heptafluorobutyric acid (Chemical Abstracts Service No. 375-22-4);

(K) perfluorohexanoic acid (Chemical Abstracts Service No. 307-24-4);

(L) the compound associated with the chemical described in subsection (b)(1)(F) identified by Chemical Abstracts Service No. 2062-98-8;

(M) perfluoroheptanoic acid (commonly referred to as ``PFHpA'') (Chemical Abstracts Service No. 375-85-9);

(N) each perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances for which a method to measure levels in drinking water has been validated by the Administrator; and

[[Page 133 STAT. 2281]]

(O) a perfluoroalkyl and polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances other than the chemicals described in subparagraphs (A) through (N) that is used to manufacture fluorinated polymers, as determined by the Administrator.

(3) <<NOTE: Deadline.>> Addition to toxics release inventory.--Subject to subsection (e), if the Administrator determines under paragraph (1) that a substance or a class of substances described in paragraph (2) meets any one of the criteria described in section 313(d)(2) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(d)(2)), the Administrator shall revise the toxics release inventory in accordance with such section 313(d) to include that substance or class of substances not later than 2 years after the date on which the Administrator makes the determination.

(e) Confidential Business Information.--

(1) In general.--Prior to including on the toxics release inventory pursuant to subsection (b)(1), (c)(1), or (d)(3) any perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances the chemical identity of which is subject to a claim of a person of protection from disclosure under subsection (a) of section 552 of title 5, United States Code, pursuant to subsection (b)(4) of that section, the Administrator shall--

(A) <<NOTE: Review.>> review any such claim of protection from disclosure; and

(B) require that person to reassert and substantiate or resubstantiate that claim in accordance with section 14(f) of the Toxic Substances Control Act (15 U.S.C. 2613(f)).

(2) <<NOTE: Determination.>> Nondisclosure of protection information.--If the Administrator determines that the chemical identity of a perfluoroalkyl or polyfluoroalkyl substance or class of perfluoroalkyl or polyfluoroalkyl substances qualifies for protection from disclosure pursuant to paragraph (1), the Administrator shall include the substance or class of substances, as applicable, on the toxics release inventory in a manner that does not disclose the protected information.

(f) Emergency Planning and Community Right-To-Know Act of 1986.--Section 313(c) of the Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11023(c)) is amended--

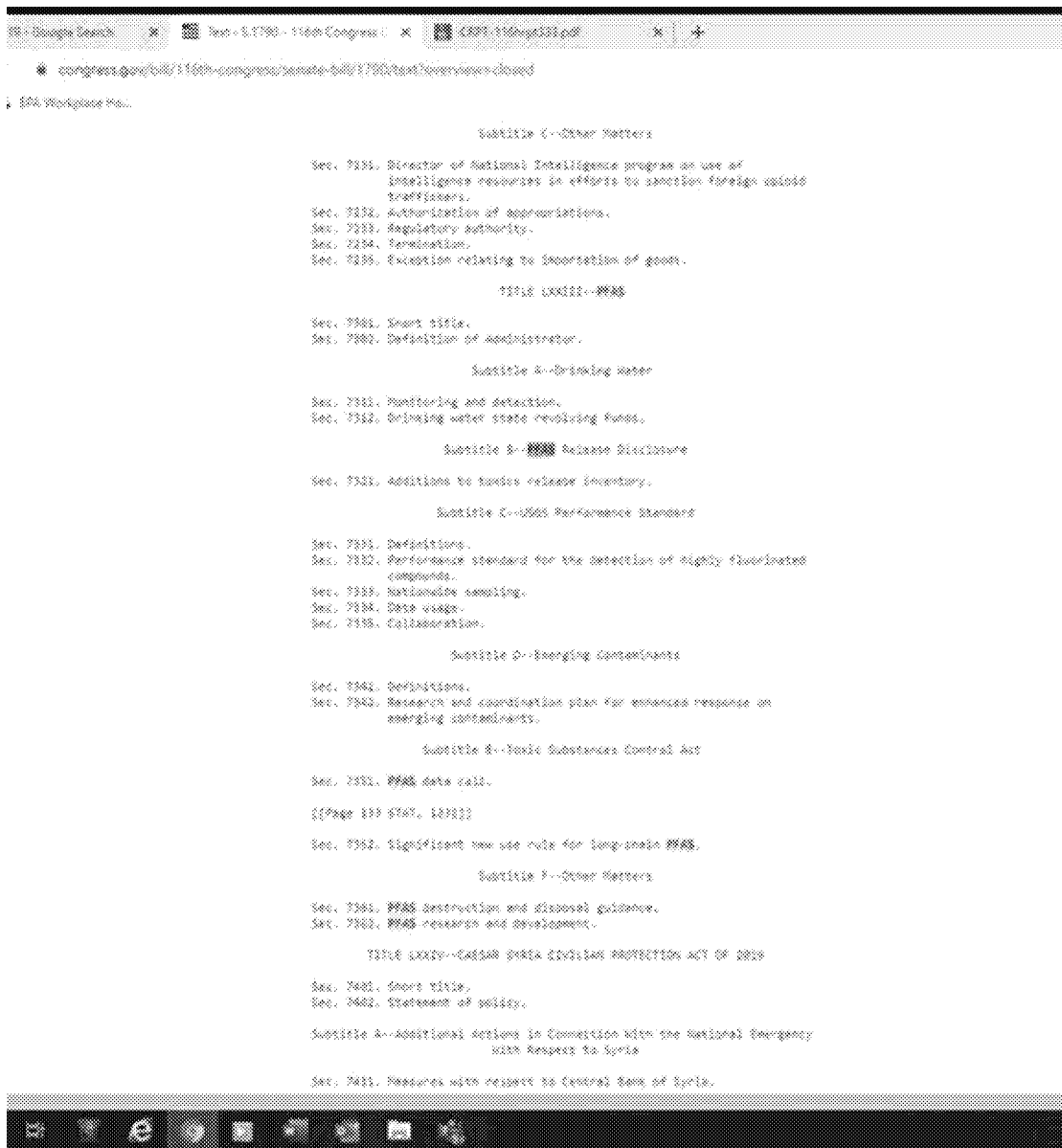
(1) by striking the period at the end and inserting ``; and'';

(2) by striking ``are those chemicals'' and inserting the following: ``are--

``(1) the chemicals''; and

(3) by adding at the end the following:

``(2) the chemicals included on such list under subsections (b)(1), (c)(1), and (d)(3) of section 7321 of the PFAS Act of 2019.''.



David Widawsky, PhD
Director - Data Gathering and Analysis Division
OCSPP/OPPT
(202) 566-2215

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Friday, January 29, 2021 8:50 AM
To: Widawsky, David <Widawsky.David@epa.gov>
Subject: RE: Question from Actg AA on Section 8a7 Rule

Can Steph get it for you?

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Widawsky, David <Widawsky.David@epa.gov>
Sent: Friday, January 29, 2021 8:50 AM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: Re: Question from Actg AA on Section 8a7 Rule

My computer is acting up so on my phone. When my computer complies, I will look for it.

Sent from my iPhone
David Widawsky, Director
Chemistry, Economics, and Sustainable Strategies Division
Office of Chemical Safety and Pollution Prevention
US EPA

On Jan 29, 2021, at 8:18 AM, Henry, Tala <Henry.Tala@epa.gov> wrote:

Mihal has review the proposal and had the following question:
I did wonder on the PFAS 8(a) whether the NDAA text included a definition of PFAS that applied to that subsection as well?

Tala: My recollection is it did not have any definition, just "PFAS" and only 'definition' was the 2011 date. Please confirm and maybe even send me the 'text' of Section 8a7...I think it was brief.

Thx
Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 2/9/2021 7:10:37 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: Comments on PFAS Data Call NPRM

Sorry, I ended up getting distracted. Let me email Madison re: the new chemicals Q. I think the focus of Dave's question is that someone may submit a PMN on a PFAS and it's possible that data that we collect on a PFAS via this rule could help inform the outcome of that PMN request.

Peter seemed to think Michal wanted to review again but I think that it would rapid and light. However, Tala may know more about Michal's preferences re: this rule.

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, February 9, 2021 2:07 PM
To: Turk, David <Turk.David@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Oops, I may have been too eager in my email earlier. Before I reply to Peter, are you anticipating us making any additional edits per David's comments? I'll hold off w/ my email to RSB until we're done with the document.

From: Griffin, Stephanie
Sent: Tuesday, February 9, 2021 12:33 PM
To: Turk, David <Turk.David@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

I'm sorry, I stepped away for lunch and missed a slew of emails here. No, I don't have a new chemicals contact.

Ex. 5 Deliberative Process (DP)

Re Tala's email: this has already been cleared to go to OMB??? That's amazing, and I'll shortly email Peter to confirm I'm all done with addressing edits.

From: Turk, David <Turk.David@epa.gov>
Sent: Tuesday, February 9, 2021 12:05 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Do you have a contact in new chemicals to ask this Q? Otherwise, I can email Madison Le to ask her. I don't think it's a terrible add to include.

Ex. 5 Deliberative Process (DP)

From: Widawsky, David <Widawsky.David@epa.gov>
Sent: Tuesday, February 9, 2021 11:57 AM
To: Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Additional thoughts:

Ex. 5 Deliberative Process (DP)

David Widawsky, PhD
Director - Data Gathering and Analysis Division
OCSPP/OPPT
(202) 566-2215

From: Turk, David <Turk.David@epa.gov>
Sent: Tuesday, February 9, 2021 10:47 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Dave,

If you like, we can email Tala re: the 8a7 edits to provide her an update ahead of the COB deadline requested by Peter. Here's what I've drafted.

Tala,

As a heads up, we're handling typesetting review w/ Angela's group. They provided a substantial # of edits and asked for us to clear the review today. Per Peter, next step would be to share the updated version w/ Michal and then send the document to OMB.

Would you like to see the FRN again? RCS provided a good # of edits. However, while the # of edits was substantial, nothing stands out to us particularly noteworthy.

Ex. 5 Deliberative Process (DP)

-Dave

From: Turk, David
Sent: Monday, February 8, 2021 2:54 PM
To: Widawsky, David <Widawsky.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

I just spoke with Peter; they're wondering whether we could finish our review by COB tomorrow. I think that should be feasible. However, I'd like to confirm with OGC that none of the edits are problematic and check in to what extend the DGAD IO and/or OPPT needs to review the document again. Steph handled most of the comments last week. I think that tomorrow morning she can close out anything that's remaining. In terms of whether to include the CFR language in a new part or to incorporate into an existing part, it sounds like we can keep it as-is (i.e., as a new part) and continue this discussion amongst ourselves while the proposal is at OMB.

Next steps, upon being return to RCS, require another quick look from Michal (I believe) and then the proposal can go to OMB from what I heard.

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Thursday, February 4, 2021 12:39 PM
To: Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Wingate, Diedra <Wingate.Diedra@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>
Subject: Comments on PFAS Data Call NPRM

Dave and Stephanie,

I'll be your RSB contact for the rulemaking going forward, and Katherine will be my back up. Carolyn Siu will also be providing some RSB support as an entrée to rulemaking efforts and interagency reviews in general. I have comments on the NPRM package (attached), specifically the NPRM and the EA. Per usual, I have suggested revisions that I think could work to resolve the comments. I think these are pretty straightforward, but happy to meet if you have questions/concerns. To highlight I have comments addressing:

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

We just confirmed with Michal that she'll take another quick look at the NPRM after making any refinements, e.g., re: EJ. I'll also be setting up very soon a limited access SharePoint site for the upcoming interagency review of the NPRM (and later the final rule), and I definitely want to make sure you and the rest of the team understand how we'll use that site and related collaboration functions, so that would be a separate, upcoming meeting with you.

All the best,
Peter

***NOTICE:** If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.*

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Widawsky, David [Widawsky.David@epa.gov]
Sent: 2/9/2021 9:00:47 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Turk, David [Turk.David@epa.gov]
CC: Reisman, Larry [Reisman.Larry@epa.gov]
Subject: RE: Comments on PFAS Data Call NPRM

Ex. 5 Deliberative Process (DP)

I'm a late-comer to this, and don't want to upset a carefully balanced apple cart.

Please proceed as you've described.

David Widawsky, PhD
Director - Data Gathering and Analysis Division
OCSPP/OPPT
(202) 566-2215

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, February 9, 2021 3:58 PM
To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Thanks for the quick reviews!

Ex. 5 Deliberative Process (DP)

If you're all fine with the updated document, I'll let Peter know we're done with the edits.

From: Widawsky, David <Widawsky.David@epa.gov>
Sent: Tuesday, February 9, 2021 2:59 PM
To: Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Your responses are fine, Dave.

Ex. 5 Deliberative Process (DP)

Yes, we all need a break. I'm planning on taking Friday off to finally get some winter fun in (which I haven't yet done this winter).

David Widawsky, PhD
Director - Data Gathering and Analysis Division
OCSPP/OPPT
(202) 566-2215

From: Turk, David <Turk.David@epa.gov>
Sent: Tuesday, February 9, 2021 2:31 PM

To: Widawsky, David <Widawsky.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>

Cc: Reisman, Larry <Reisman.Larry@epa.gov>

Subject: RE: Comments on PFAS Data Call NPRM

Let's discuss at today's general if you dislike my responses. 😊

Ex. 5 Deliberative Process (DP)

*I wrote end of time originally; I am excited to enjoy the long weekend... Apparently I need a break. 😊

From: Widawsky, David <Widawsky.David@epa.gov>

Sent: Tuesday, February 9, 2021 11:57 AM

To: Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>

Cc: Reisman, Larry <Reisman.Larry@epa.gov>

Subject: RE: Comments on PFAS Data Call NPRM

Additional thoughts:

Ex. 5 Deliberative Process (DP)

David Widawsky, PhD
Director - Data Gathering and Analysis Division
OCSPP/OPPT
(202) 566-2215

From: Turk, David <Turk.David@epa.gov>
Sent: Tuesday, February 9, 2021 10:47 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

Dave,

If you like, we can email Tala re: the 8a7 edits to provide her an update ahead of the COB deadline requested by Peter. Here's what I've drafted.

Tala,

As a heads up, we're handling typesetting review w/ Angela's group. They provided a substantial # of edits and asked for us to clear the review today. Per Peter, next step would be to share the updated version w/ Michal and then send the document to OMB.

Would you like to see the FRN again? RCS provided a good # of edits. However, while the # of edits was substantial, nothing stands out to us particularly noteworthy.

I'll add that we have not yet resolved where in the CFR to place the new regulations, but per Peter Smith we can move the FRN to OMB w/o finalizing our decision.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP) Additionally, it sounds like we may have to include text re: climate change due to a recent EO, but we may not need to include such language until guidance is released for the EO.

-Dave

From: Turk, David
Sent: Monday, February 8, 2021 2:54 PM
To: Widawsky, David <Widawsky.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Subject: RE: Comments on PFAS Data Call NPRM

I just spoke with Peter; they're wondering whether we could finish our review by COB tomorrow. I think that should be feasible. However, I'd like to confirm with OGC that none of the edits are problematic and check in to what extend the DGAD IO and/or OPPT needs to review the document again. Steph handled most of the comments last week. I think that tomorrow morning she can close out anything that's remaining. In terms of whether to include the CFR language in a new part or to incorporate into an existing part, it sounds like we can keep it as-is (i.e., as a new part) and continue this discussion amongst ourselves while the proposal is at OMB.

Next steps, upon being return to RCS, require another quick look from Michal (I believe) and then the proposal can go to OMB from what I heard.

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Thursday, February 4, 2021 12:39 PM
To: Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Wingate, Diedra <Wingate.Diedra@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>
Subject: Comments on PFAS Data Call NPRM

Dave and Stephanie,

I'll be your RSB contact for the rulemaking going forward, and Katherine will be my back up. Carolyn Siu will also be providing some RSB support as an entrée to rulemaking efforts and interagency reviews in general. I have comments on the NPRM package (attached), specifically the NPRM and the EA. Per usual, I have suggested revisions that I think could work to resolve the comments. I think these are pretty straightforward, but happy to meet if you have questions/concerns. To highlight I have comments addressing:

Ex. 5 Deliberative Process (DP)

We just confirmed with Michal that she'll take another quick look at the NPRM after making any refinements, e.g., re: EJ. I'll also be setting up very soon a limited access SharePoint site for the upcoming interagency review of the NPRM (and later the final rule), and I definitely want to make sure you and the rest of the team understand how we'll use that site and related collaboration functions, so that would be a separate, upcoming meeting with you.

All the best,
Peter

NOTICE: If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency| Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Hofmann, Angela [Hofmann.Angela@epa.gov]
Sent: 2/12/2021 9:07:46 PM
To: Walker, Sherri [Walker.Sherri@epa.gov]; Manibusan, Mary [Manibusan.Mary@epa.gov]; Kramer, Melissa [Kramer.Melissa@epa.gov]; Cooperstein, Sharon [Cooperstein.Sharon@epa.gov]; Miles-McLean, Stuart [Miles-McLean.Stuart@epa.gov]; Corrales, Mark [Corrales.Mark@epa.gov]; Nickerson, William [Nickerson.William@epa.gov]; Adams, Darryl [Adams.Darryl@epa.gov]; OP ADP Calendar [OP_ADP_Calendar@epa.gov]
CC: OPS MSD RSB [OPS_MSD_RSB@epa.gov]; Tyler, Tom [Tyler.Tom@epa.gov]; Hanley, Mary [Hanley.Mary@epa.gov]; Richmond, Jonah [Richmond.Jonah@epa.gov]; Siciliano, CarolAnn [Siciliano.CarolAnn@epa.gov]; Mayes, Desmond [Mayes.Desmond@epa.gov]; Mosby, Jackie [Mosby.Jackie@epa.gov]; Wormell, Lance [Wormell.Lance@epa.gov]; Gray, Shawna [Gray.Shawna@epa.gov]; Vendinello, Lynn [Vendinello.Lynn@epa.gov]; Dennis, Allison [Dennis.Allison@epa.gov]; Siedschlag, Gregory [Siedschlag.Gregory@epa.gov]; Collazo Reyes, Yvette [CollazoReyes.Yvette@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]; Hartman, Mark [Hartman.Mark@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Turk, David [Turk.David@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Callahan, Leigh [Callahan.Leigh@epa.gov]; Rice, Cody [Rice.Cody@epa.gov]; Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]; Fisher, Bethany [fisher.bethany@epa.gov]; Kaczmarek, Chris [Kaczmarek.Chris@epa.gov]; Cole, Joseph E. [cole.josephe@epa.gov]; Kerwin, Courtney [Kerwin.Courtney@epa.gov]; Schultz, Eric [schultz.eric@epa.gov]; Johnson, Amaris [Johnson.Amaris@epa.gov]
Subject: Submit to OMB for EO12866 Review: TSCA §8(a) PFAS Data Call; NPRM (SAN 7902)
Attachments: RIN2070-AK67_EO12866_PFAS-TSCA 8a_NPRM_FRdocument_2021-02-11.docx; RIN2070-AK67_EO12866_PFAS-TSCA 8a_NPRM_EconomicAnalysis_2021-02-11.docx; RIN2070-AK67_EO12866_PFAS-TSCA 8a_NPRM_AdvancedCopy_DraftICR_2021-02-11.docx; RIN2070-AK67_EO12866_PFAS-TSCA 8a_NPRM_ActionMemo_2021-02-11.docx
Importance: High
Flag: Follow up

Hi Sherri et al,

On behalf of the acting OCSPP AA, Michal Freedhoff, I hereby request OP's review and transmittal of the following action to OMB for review under EO 12866/13563:

TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances; Proposed Rule
[Tier 3; SAN 7902, RIN 2070-AK67; FRL-10017-78]

Timing Sensitivity? Yes! This rulemaking is compelled by Section 7351 of the FY2020 National Defense Authorization Act. The NDAA established a January 1, 2023 deadline for promulgation of the final rule. This proposed rule should be submitted to OMB for EO 12866 review as early as possible in furtherance of EPA's compliance with the statutory requirement.

Who is the OP/PRAD lead? Sharon Cooperstein.

What is provided? As listed below, the attached documents should be uploaded into ROCIS for inclusion in the EO 12866 review submission package, with the draft proposed rule document identified as the primary document.

The following documents should be uploaded to ROCIS:

- 1) EO 12866 Review Draft of the Federal Register document (proposed rule).
- 2) EO 12866 Review Draft of the Economic Analysis.

3) EO 12866 Review Advance Draft of the ICR.

The draft action memorandum is also attached but provided as internal FYI only and should NOT be uploaded to ROCIS

If you have any questions, please call Peter Smith on 564-0262, or me on 564-0258. Thank you for all of your help!

- Angela

Angela Hofmann

Chief, Regulatory Support Branch (RSB)

Mission Support Division (MSD)

Office of Program Support (OPS)

Office of Chemical Safety and Pollution Prevention (OCSPP)

U.S. Environmental Protection Agency (EPA)

Mailing Address: Mailcode 7101M - 1200 Pennsylvania Ave., N.W., Washington, DC 20460

Office Location: William Jefferson Clinton Building, East Room 3139L

Phone: 202-564-0258



Message

From: Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]
Sent: 3/4/2021 10:02:44 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Turk, David [Turk.David@epa.gov]
Subject: RE: Follow-up to OMB questions in 8a7 call

I agree as well with his proposed response.

Stephanie Schwarz
EPA Office of General Counsel
Pesticides and Toxic Substances Law Office
T: 202-564-8496
E: schwarz.stephanie@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, March 4, 2021 5:00 PM
To: Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: RE: Follow-up to OMB questions in 8a7 call

I'm good with confirming Peter's interpretation. The 704.3 definition is:

Article means a manufactured item (1) which is formed to a specific shape or design during manufacture, (2) which has end use function(s) dependent in whole or in part upon its shape or design during end use, and (3) which has either no change of chemical composition during its end use or only those changes of composition which have no commercial purpose separate from that of the article, and that result from a chemical reaction that occurs upon end use of other chemical substances, mixtures, or articles; except that fluids and particles are not considered articles regardless of shape or design.

*that said, I'm preparing for a potential blowback from OMB/IA reviewers. I'll deal with that if/when that happens. ☺

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Thursday, March 4, 2021 4:25 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>
Subject: RE: Follow-up to OMB questions in 8a7 call
Importance: High

Thanks tons!

Ex. 5 Deliberative Process (DP)

Concerns?

Best,
Peter

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Thursday, March 04, 2021 3:34 PM

To: Smith, Peterj <Smith.Peterj@epa.gov>

Cc: Turk, David <Turk.David@epa.gov>

Subject: Follow-up to OMB questions in 8a7 call

Hi Peter,

Following up with the IA questions from yesterday's call:

- Confirming that this rule is limited to manufacturing for a commercial purpose, per section 8(f).
- Confirming that this rule will include articles with PFAS.

I understand you're going to send a link to OMB for the requested definitions, so please let me know if you need anything else. Thanks!

Stephanie Griffin

Data Collection Branch

Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency

(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Smith, Peterj [Smith.Peterj@epa.gov]
Sent: 4/7/2021 8:27:56 PM
To: Henry, Tala [Henry.Tala@epa.gov]
CC: Siciliano, CarolAnn [Siciliano.CarolAnn@epa.gov]; Mosby, Jackie [Mosby.Jackie@epa.gov]; Hofmann, Angela [Hofmann.Angela@epa.gov]; Sleasman, Katherine [Sleasman.Katherine@epa.gov]; Siu, Carolyn [siu.carolyn@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Turk, David [Turk.David@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Comments
Attachments: EO 12866 Interagency Comments TSCA Section 8a PFAS FRN RIN 2070-AK67.docx; EO 12866 Interagency Comments TSCA Section 8a PFAS EA RIN 2070-AK67.docx

Hi Tala,

For your review and sign-off, I am pleased to provide the draft responses to IA comments on the NPRM and the EA. In accordance with instruction provided by Michal during the 3/25/2021 OPS General, she will not need to further review the comment responses unless there are significant issues she needs to be aware of and responses she needs to see in kind. We will otherwise give her a copy of what we sent to OMB.

Please let us know if you have any questions or suggested revisions.

All the best,
Peter

NOTICE: If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Henry, Tala [Henry.Tala@epa.gov]
Sent: 4/7/2021 10:42:44 PM
CC: Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Turk, David [Turk.David@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: RE: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Comments
Attachments: EO 12866 Interagency Comments TSCA Section 8a PFAS FRN RIN 2070-AK67_TH.docx

Dave/Steph –

We need to reserve time at the Info Gathering meeting tomorrow (maybe the whole thing) to discuss my comments/questions in attached...I will take your ppt with updates for the other stuff.

Thx

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Wednesday, April 7, 2021 4:28 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>; Mosby, Jackie <Mosby.Jackie@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Comments

Hi Tala,

For your review and sign-off, I am pleased to provide the draft responses to IA comments on the NPRM and the EA. In accordance with instruction provided by Michal during the 3/25/2021 OPS General, she will not need to further review the comment responses unless there are significant issues she needs to be aware of and responses she needs to see in kind. We will otherwise give her a copy of what we sent to OMB.

Please let us know if you have any questions or suggested revisions.

All the best,
Peter

NOTICE: If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

ED_006319A_00003530-00001

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 4/8/2021 1:00:06 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: in-body edits by tala
Attachments: Tala_FRN_redline.docx

I think the redline are edits that she made

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 4/8/2021 6:43:41 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: 3 PFAS adds to CFR

Here's the SNUR's def – it lists formula and then also specifically names certain substances (that may or may not fit the formula).

(a) *Definitions.* The definitions in § 721.3 apply to this section. In addition, the following definition applies:

Carpet means a finished fabric or similar product intended to be used as a floor covering. This definition excludes resilient floor coverings such as linoleum and vinyl tile.

(b) *Chemical substances and significant new uses subject to reporting.* (1) The chemical substances identified in this paragraph, where $5 < n < 21$ or $6 < m < 21$, are subject to reporting under this section for the significant new uses described in paragraph (b)(4)(i) and (b)(4)(iv) of this section.

(i) $\text{CF}_3(\text{CF}_2)_n\text{-COO}^- \text{M}$ where $\text{M} = \text{H}^+$ or any other group where a formal dissociation can be made;

(ii) $\text{CF}_3(\text{CF}_2)_n\text{-CH=CH}_2$;

(iii) $\text{CF}_3(\text{CF}_2)_n\text{-C(=O)-X}$, where X is any chemical moiety;

(iv) $\text{CF}_3(\text{CF}_2)_m\text{-CH}_2\text{-X}$, where X is any chemical moiety; and

(v) $\text{CF}_3(\text{CF}_2)_m\text{-Y-X}$, where Y = non-S, non-N heteroatom and where X is any chemical moiety.

(2) The chemical substances listed in Table 1 of this paragraph are subject to reporting under this section for the significant new uses described in paragraph (b)(4)(ii) of this section.

From: Turk, David
Sent: Thursday, April 8, 2021 2:42 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: FW: 3 PFAS adds to CFR

Not sure that any of this is useful, but I think this info I had provided relates to comments Q regarding whether this is the same def as used by the long-chain PFAS SNUR. I feel like the defs are slightly different.

From: Turk, David
Sent: Friday, February 26, 2021 3:13 PM
To: Henry, Tala <Henry.Tala@epa.gov>; Lloyd, Tyler <Lloyd.Tyler@epa.gov>; Wolf, Joel <Wolf.Joel@epa.gov>
Cc: Williamson, Tracy <Williamson.Tracy@epa.gov>; Ruedy, Daniel <Ruedy.Daniel@epa.gov>
Subject: RE: 3 PFAS adds to CFR

Tala,

I haven't caught up on everything, but here's some info that I think will be useful. Ahead of my sending this email, Tyler and I did have a chance to talk briefly, and, along with my feedback, I'm including some feedback he provided below. I'll be unavailable after I hit send; in case further TRI-related Qs arise, I added Daniel who is also familiar with the TRI PFAS addition.

TRI:

Short Answer: The long-chain SNUR triggered the addition of three PFAS to TRI. We have not yet incorporated the TRI portion of the CFR to include these three PFAS. The SNUR specifically included Perfluorooctyl iodide, which is why it is being added to TRI. It does not fit the historic SNUR definition but the recent SNUR specifically added it via a table.

Longer Answer (same info as above but wordier):

Based on the conversations we had with ICB and ECB following the initial enactment of the NDAA, it was determined that this chemical did not meet the formulas provided by the .10536. IT was one of the PFAS that we specifically did not add for this reason. **HOWEVER**, the 2020 final SNUR added a “Table 1” and “Table 2” for .10536 that specifically lists and thus incorporates certain PFAS. Not all of the PFAS in this table fit the formulas in .10536. For example, Perfluorooctyl iodide is listed in Table 1 and thus is part of the SNUR. It does not meet the formula thus it was not part of the initial 172 TRI PFAS but is now on the TRI list due to its inclusion in the SNUR via Table 1 being incorporated into 10536. Potassium perfluorooctanoate (2395-00-8) and Silver(I) perfluorooctanoate (335-93-3) are listed in Table 2.

PFAS 8(a)(7) Definition: This is the definition that we’ve been using in the 8(a)(7) PFAS data reporting proposal: For the purposes of this proposed action, the structural definition of PFAS includes per- and polyfluorinated substances that structurally contain the unit $R-(CF_2)_n-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons and none of the R groups (R , R' or R'') can be hydrogen.

This is from Tyler re: the marked-up document:

Ex. 5 Deliberative Process (DP)

Additionally, the LCPFC SNUR modified both 721.9582 and 721.10536. The PFAS added to TRI were specifically included under 721.10536

-Dave (and Tyler)

From: Henry, Tala <Henry.Tala@epa.gov>

Sent: Friday, February 26, 2021 1:21 PM

To: Turk, David <Turk.David@epa.gov>; Lloyd, Tyler <Lloyd.Tyler@epa.gov>; Wolf, Joel <Wolf.Joel@epa.gov>

Cc: Williamson, Tracy <Williamson.Tracy@epa.gov>

Subject: RE: 3 PFAS adds to CFR

Importance: High

In some TA that OCIR is revisiting it says:

(5) PERFLUOROALKYL OR POLYFLUOROALKYL SUBSTANCE.—The term “perfluoroalkyl or polyfluoroalkyl substance” means a perfluoroalkyl substance or a polyfluoroalkyl substance that is—

(A) manmade; and

(B) has at least 1 fully fluorinated carbon atom.

And OPPT previously commented:

Note: (B) is consistent with sec. 7321(b)(1)(E) and (C)(1)(a)(i) from the TRI provisions in the FY 2020 NDAA

I thought the OPPT “working definition” was that had to have at least TWO fully fluorinated carbons???

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Henry, Tala
Sent: Friday, February 26, 2021 1:17 PM
To: Dave Turk (Turk.David@epa.gov) <Turk.David@epa.gov>; Lloyd, Tyler <Lloyd.Tyler@epa.gov>; Wolf, Joel <Wolf.Joel@epa.gov>
Subject: 3 PFAS adds to CFR

As result of the LCPFC SNUR...are they added to 721.9582 or 721.10536 or some to each/both?

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

Message

From: Passe, Loraine [Passe.Loraine@epa.gov]
Sent: 4/30/2021 12:49:22 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]
Subject: RE: 8a rule

Thank you!

Loraine Passe
New Chemicals Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Phone: (202) 564-9064

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, April 30, 2021 8:29 AM
To: Passe, Loraine <Passe.Loraine@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: 8a rule

Sure, attached is a local copy of the current draft. We're still reviewing OMB follow-up comments and editing, but I don't anticipate making more edits to the info on LVEs & the OPPT definition of PFAS. For the LVEs posting, the relevant section starts at the bottom of page 12 "What chemical substances would be reported under this rule?"

Let me know if you have any questions. Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Passe, Loraine <Passe.Loraine@epa.gov>
Sent: Friday, April 30, 2021 7:46 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Subject: 8a rule

Hi Stephanie-

Thanks for chatting with us yesterday about the 8a PFAS rule. Can you please forward the latest draft of the rule? I am drafting our web text for posting the list of LVEs and want to make sure I use the same language you use in the rule for defining the list. Thanks!

Loraine Passe
New Chemicals Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Phone: (202) 564-9064

Message

From: Smith, Peterj [Smith.Peterj@epa.gov]
Sent: 5/20/2021 7:39:13 PM
To: Henry, Tala [Henry.Tala@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Siciliano, CarolAnn [Siciliano.CarolAnn@epa.gov]; Mosby, Jackie [Mosby.Jackie@epa.gov]; Hofmann, Angela [Hofmann.Angela@epa.gov]; Sleasman, Katherine [Sleasman.Katherine@epa.gov]; Siu, Carolyn [siu.carolyn@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Turk, David [Turk.David@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Canavan, Sheila [Canavan.Sheila@epa.gov]; Rice, Cody [Rice.Cody@epa.gov]; Callahan, Leigh [Callahan.Leigh@epa.gov]
Subject: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Follow-up Comments
Attachments: EO12866InteragencyFollowupcommentsTSCASection8aPFASNPRMFRNRIN2070AK67.docx; EO12866InteragencyFollowupcommentsTSCASection8aPFASNPRMEARIN2070.AK67.docx; instructions_for_reporting_2020_tsca_cdr_2020-11-25.pdf; Examples of PFAS and Structural Diagrams included in the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS (1).xlsx

Hi Tala,

For your review and sign-off, I am pleased to provide the draft responses to IA comments on the NPRM and the EA. For completeness, I've also attached the materials requested by IA reviewers in their comments. During the 3/25 OPS General, Michal advised that she wouldn't need to review comment responses unless there are significant issues, and our OMB desk officer and I agree that there isn't anything "significant" about the follow-up comments (although reasonable minds may disagree).

I'll send promptly pass on to OMB with your agreement that these are good to go. Please let us know if you need anything else!

All the best,
Peter

***NOTICE:** If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.*

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Smith, Peterj [Smith.Peterj@epa.gov]
Sent: 6/10/2021 10:11:42 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Turk, David [Turk.David@epa.gov]
Subject: FW: ASAP for ROCIS UPLOAD: Rule-related ICR - TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for PFAS (NPRM; ICR No. 2682.01)
Attachments: 2682ss01.docx; 2682ss01_Attachment A.pdf; 2682ss01_Attachment B.pdf; 2682ss01_Attachment C.pptx

Importance: High
Flag: Follow up

Hi Steph,

If no OMS edits, these are the ICR materials that would be added to the docket. Supporting statement would be the main document and the others would be "attachments." I'll circle back upon receiving OMS confirmation.

Best,
Peter

From: Smith, Peterj
Sent: Thursday, June 10, 2021 3:13 PM
To: Schultz, Eric <schultz.eric@epa.gov>; Johnson, Amaris <Johnson.Amaris@epa.gov>; Kerwin, Courtney <Kerwin.Courtney@epa.gov>
Cc: Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>
Subject: ASAP for ROCIS UPLOAD: Rule-related ICR - TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for PFAS (NPRM; ICR No. 2682.01)
Importance: High

Good afternoon!

OMS previously reviewed the PRA language in the NPRM in February OP submitted the EO 12866 review package to OMB, only the burden estimates in the PRA discussion were adjusted during the OMB review. We advised OMS during the OMB review that OMB asked us to repackage the ICR supporting statement to ensure that it conforms to the 18 question format. We have done so.

On Monday, OMB concluded review of the above referenced NPRM package. Our PDAA signed the rule in accordance with delegated signature authority today, and we will promptly submit the NPRM to OFR for publication. Attached for OMS review and ROCIS upload on the NPRM's publication date (to be confirmed) are:

- the ICR submission worksheet (Excel)
- the ICR Supporting Statement (Word)
- Supporting Statement Attachment A - TSCA sec. 8 (PDF)
- Supporting Statement Attachment B - Pre-publication copy of the signed NPRM (PDF)
- Supporting Statement Attachment C - Mockup of CDX e-Reporting Module (PowerPoint) (may also be uploaded with the IC entry)

We will circle back to you as soon as we have a confirmed NPRM publication date from OFR. In the meantime, please let me know if you have any questions!

All the best,
Peter

NOTICE: *If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.*

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

PRE-PUBLICATION NOTICE

On June 10, 2021, **Michal Freedhoff**, the EPA Principal Deputy Assistant Administrator for Chemical Safety and Pollution Prevention, signed the following document:

Action: Proposed Rule

Title: TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances

FRL #: 10017-78

Docket ID #: EPA-HQ-OPPT-2020-0549

EPA is submitting this document for publication in the *Federal Register* (FR). EPA is providing this document solely for the convenience of interested parties. It is not the official version of the document for purposes of public notice and comment under the Administrative Procedure Act. This document is not disseminated for purposes of EPA's Information Quality Guidelines and does not represent an Agency determination or policy. While we have taken steps to ensure the accuracy of this Internet version of the document that was signed, the official version will publish in a forthcoming FR publication, which will appear on the Government Printing Office's govinfo website (<https://www.govinfo.gov/app/collection/fr>) and on Regulations.gov (<https://www.regulations.gov>) in the docket identified above.

Once the official version of this document is published in the *Federal Register*, this version will be removed from the Internet and replaced with a link to the official version. At that time, you will also be able to access the on-line docket for this *Federal Register* document at <http://www.regulations.gov>.

For further information about the docket and, if applicable, instructions for commenting, please consult the ADDRESSES section in the front of the Federal Register document.

This page is intentionally blank.

BILLING CODE 6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 705

[EPA-HQ-OPPT-2020-0549; FRL-10017-78]

RIN 2070-AK67

TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing reporting and recordkeeping requirements for Per- and Polyfluoroalkyl Substances (PFAS) under the Toxic Substances Control Act (TSCA). In accordance with obligations under TSCA, as amended by the National Defense Authorization Act for Fiscal Year 2020, EPA proposes to require certain persons that manufacture (including import) or have manufactured these chemical substances in any year since January 1, 2011, to electronically report information regarding PFAS uses, production volumes, disposal, exposures, and hazards. EPA is requesting public comment on all aspects of this proposed rule and has also identified items of particular interest for public input. In addition to fulfilling statutory obligations under TSCA, this proposed rule will enable EPA to better characterize the sources and quantities of manufactured PFAS in the United States.

DATES: Comments must be received on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]. Under the Paperwork Reduction Act, comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before [INSERT

DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Submit your comments, identified by docket identification (ID) number EPA-HQ-OPPT-2020-0549, using the Federal eRulemaking Portal at <http://www.regulations.gov>.

Follow the online instructions for submitting comments. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.

Due to the public health concerns related to COVID-19, the EPA Docket Center (EPA/DC) and Reading Room is closed to visitors with limited exceptions. The staff continues to provide remote customer service via email, phone, and webform. For the latest status information on EPA/DC services and docket access, visit <https://www.epa.gov/dockets>.

FOR FURTHER INFORMATION CONTACT: *For technical information contact:* Stephanie Griffin, Data Gathering and Analysis Division (7401M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 564-1463; email address: griffin.stephanie@epa.gov.

For general information contact: The TSCA-Hotline, ABVI-Goodwill, 422 South Clinton Ave., Rochester, NY 14620; telephone number: (202) 554-1404; email address: TSCA-Hotline@epa.gov.

SUPPLEMENTARY INFORMATION:

I. Executive Summary

A. Does this action apply to me?

You may be potentially affected by this action if you currently or have previously manufactured (defined by statute at 15 U.S.C. 2602(9) to include import) a chemical substance that is a PFAS between January 1, 2011 and the effective date of the final rule. Note that this rule

is limited to manufacturers (including importers) of PFAS that are covered as a “chemical substance” under TSCA section 3(2). This rule does not require reporting on substances that are excluded from the definition of “chemical substance” in TSCA section 3(2)(B). Those exclusions include, but are not limited to: any pesticide (as defined by the Federal Insecticide, Fungicide, and Rodenticide Act) when manufactured, processed, or distributed in commerce for use as a pesticide; any food, food additive, drug, cosmetic, or device, as defined by the Federal Food, Drug, and Cosmetic Act, when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic or device; tobacco or any tobacco product; any source material, special nuclear material, or byproduct material as such terms are defined in the Atomic Energy Act of 1954; and, any article the sale of which is subject to the tax imposed by Section 4181 of the Internal Revenue Code of 1954. Substances which have been manufactured or imported for intended use as any food, food additive, drug, cosmetic, or device, regulated by the Food and Drug Administration, are not chemical substances under TSCA.

The manufacture of PFAS as a byproduct is not exempt for the purpose of this proposed rule. Unlike TSCA section 8(a)(1), which specifically provides an exemption for small manufacturers and processors, TSCA section 8(a)(7) provides no such exemption. Therefore, this proposed rule under TSCA section 8(a)(7) does not exempt small manufacturers from reporting and recordkeeping requirements. See the discussion under Unit II.D. for further discussion of the inclusion of small manufacturers in this proposed rule. The Agency's previous experience with TSCA section 8(a)(1) collections, as well as the Agency's understanding of disposal and other waste management methods involving PFAS, suggests that most respondents affected by this collection activity may be from the following North American Industrial Classification System (NAICS) code categories:

- NAICS 324—Petroleum and Coal Product Manufacturing;
- NAICS 325—Chemical Manufacturing;
- NAICS 326113—Unlaminated Plastics Film and Sheet (except Packaging)

Manufacturing;

- NAICS 327910—Abrasive Product Manufacturing;
- NAICS 333999—All Other Miscellaneous General Purpose Machinery Manufacturing;
- NAICS 334511—Search, Detection, Navigation, Guidance, Aeronautical, and Nautical

System and Instrument Manufacturing;

- NAICS 336111—Automobile Manufacturing;
- NAICS 423510—Metal Service Centers and Other Metal Merchant Wholesalers;
- NAICS 424690—Other Chemical and Allied Products Merchant Wholesalers;
- NAICS 447190—Other Gasoline Stations;
- NAICS 551112—Offices of Other Holding Companies;
- NAICS 562—Waste Management and Remediation Services.

Since other entities may also be affected, the Agency has not attempted to describe all the specific entities and corresponding NAICS codes for entities that may be interested in or affected by this action, but rather has provided a guide to help readers determine whether this document applies to them. If you have any questions regarding the applicability of this action to a particular entity, consult the technical contact person listed under **FOR FURTHER INFORMATION CONTACT**.

In addition, please note that any use of the term “manufacture” in this document will encompass “import” and the term “manufacturer” will encompass “importer.”

B. What is the Agency’s authority for taking this action?

EPA is proposing this rule pursuant to its authority in TSCA section 8(a)(7) (15 U.S.C. 2607(a)(7)). The National Defense Authorization Act for Fiscal Year 2020 (Pub. L. No. 116-92, section 7351) amended TSCA section 8(a) in December 2019, adding section 8(a)(7), titled *PFAS Data*. TSCA section 8(a)(7) requires EPA to promulgate a rule “requiring each person who has manufactured a chemical substance that is a [PFAS] in any year since January 1, 2011” to report information described in TSCA section 8(a)(2)(A) through (G). This includes a broad range of information, such as information related to chemical identity and structure, production, use, exposure, disposal, and health and environmental effects.

TSCA section 14 imposes requirements for the assertion, substantiation, and review of information that is claimed as confidential (also known as confidential business information (CBI)).

C. What action is the Agency taking?

EPA is proposing reporting and recordkeeping requirements under TSCA section 8(a)(7) for PFAS manufactured in any year since January 1, 2011. EPA is providing a comment period during which the public will have the opportunity to comment on this proposed action and its proposed requirements. Commenters are encouraged to provide comments and feedback related to the proposed reporting and recordkeeping requirements presented in this Notice of Proposed Rulemaking (NPRM), including the scope of PFAS covered by the rule (see Unit V. for more discussion on specific items for which the Agency is requesting comments). EPA is providing a comment period of 60 days from the publication date of this NPRM.

D. Why is the Agency taking this action?

The Agency is proposing this action pursuant to TSCA section 8(a)(7) to obtain certain information known to or reasonably ascertainable by manufacturers of PFAS. TSCA section

8(a)(7) requires the Agency to publish a final rule not later than January 1, 2023.

E. What are the incremental economic impacts?

EPA has prepared an economic analysis of the potential impacts associated with this proposed rule (Ref. 13). The primary purpose of this proposed rule is the collection of detailed data on PFAS, as required under TSCA section (8)(a)(7). One potential benefit of this action is the information collected may serve as a basis to better understand potential routes of exposure to PFAS and potential human health and environmental impacts of certain PFAS, among other research needs listed in the Agency's PFAS Action Plan.

The industry is expected to incur one-time burdens and costs associated with rule familiarization, form completion, CBI claim substantiation, recordkeeping, and electronic reporting activities. Under the proposed rule, EPA estimates a total industry burden of approximately 122,104 hours, with a cost of approximately \$9.8 million. The affected small businesses subject to the proposed rule are expected to incur \$1,788,506 in costs for this one-time reporting, with per-firm costs estimated to range from \$16,864 to \$92,390. The Agency is expected to incur a burden of approximately 7,361 hours and a cost of \$948,078. The total social burden and cost are therefore estimated to be approximately 129,465 hours and \$10.8 million, respectively (Ref. 13).

F. What should I consider as I prepare my comments for EPA?

1. *Submitting CBI.* Do not submit this information to EPA through regulations.gov or email (see the above "Addresses" section for submitting comments either by mail or hand delivery). Clearly mark the part or all of the information that you claim to be CBI. For confidential information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the

specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. Tips for preparing your comments. When preparing and submitting your comments, see the commenting tips at <http://www.epa.gov/dockets/comments.html>.

II. Background

A. What is TSCA section 8(a)?

TSCA section 8(a)(1) authorizes EPA to promulgate rules which require entities , that are not considered small manufacturers or processors, who manufacture, process, or propose to manufacture or process a chemical substance, to maintain such records and submit such reports as the EPA Administrator may reasonably require. Similarly, under those rules, entities who manufacture, process, or propose to manufacture or process a mixture or a chemical substance in small quantities (subject to limitations) must maintain records and submit reports to the extent necessary for the effective enforcement of TSCA.

Under TSCA section 8(a)(2), EPA may require recordkeeping and reporting of the following information:

- The covered common or trade name, chemical identity and molecular structure of each chemical substance or mixture;
- Categories or proposed categories of use for each substance or mixture;
- Total amount of each substance or mixture manufactured or processed, the amounts manufactured or processed for each category of use, and reasonable estimates of the respective proposed amounts;

- Descriptions of byproducts resulting from the manufacture, processing, use, or disposal of each substance or mixture;
- All existing information concerning the environmental and health effects of each substance or mixture;
- The number of individuals exposed, and reasonable estimates on the number of individuals who will be exposed, to each substance or mixture in their places of work and the duration of their exposure, and;
- The manner or method of disposal of each substance or mixture, and any change in such manner or method.

Under TSCA section 8(a)(7), EPA must promulgate a rule to require each person who has manufactured PFAS in any year since 2011 to report the data described in TSCA section 8(a)(2)(A) through (G) to EPA.

B. What are PFAS?

PFAS are synthetic organic compounds that do not occur naturally in the environment. PFAS contain an alkyl carbon on which the hydrogen atoms have been partially or completely replaced by fluorine atoms. The strong carbon-fluorine bonds of PFAS make some of them resistant to degradation and thus highly persistent in the environment (Refs. 1 and 2). Some of these chemicals have been used for decades in a wide variety of consumer and industrial products (Ref. 1). Some PFAS have been detected in wildlife, including higher trophic organisms, indicating that at least some PFAS have the ability to bioaccumulate (Ref. 2). Some PFAS can accumulate in humans and remain in the human body for long periods of time (*e.g.*, months to years) (Refs. 1, 2, and 3). As noted in EPA's PFAS Action Plan (Ref. 1), because of the widespread use of PFAS in commerce and their tendency to persist in the environment, most

people in the United States have been exposed to PFAS. As a result, several PFAS have been detected in human blood serum (Refs. 1, 2, 3, and 4).

Under TSCA section 8(b), EPA maintains the TSCA Chemical Substance Inventory (“Inventory”), which contains all existing chemical substances manufactured, processed, or imported in the United States that do not qualify for an exemption or exclusion under TSCA (Ref. 5). EPA has identified 1,346 PFAS on the Inventory as of April 2021, 669 of which are on the active Inventory (i.e., in U.S. commerce). The list of active chemicals includes those known to be in commerce after June 2006.

C. What would be the reporting standard?

EPA is proposing that manufacturers will report information to the extent that the information is known to or reasonably ascertainable by the manufacturer (see TSCA section 8(b)(2)). “Known to or reasonably ascertainable by” would be defined to include “all information in a person’s possession or control, plus all information that a reasonable person similarly situated might be expected to possess, control, or know.” This reporting standard would require reporting entities to evaluate their current level of knowledge of their manufactured products (including imports), as well as evaluate whether there is additional information that a reasonable person, similarly situated, would be expected to know, possess, or control. This standard carries with it an exercise of due diligence, and the information-gathering activities that may be necessary for manufacturers to achieve this reporting standard may vary from case-to-case.

This standard would require that submitters conduct a reasonable inquiry within the full scope of their organization (not just the information known to managerial or supervisory employees). This standard may also entail inquiries outside the organization to fill gaps in the submitter’s knowledge. Such activities may, though not necessarily, include phone calls or email

inquiries to upstream suppliers or downstream users or employees or other agents of the manufacturer, including persons involved in the research and development, import or production, or marketing of the PFAS. Examples of types of information that are considered to be in a manufacturer's possession or control, or that a reasonable person similarly situated might be expected to possess, control, or know include: files maintained by the manufacturer such as marketing studies, sales reports, or customer surveys; information contained in standard references showing use information or concentrations of chemical substances in mixtures, such as a Safety Data Sheet or a supplier notification; and information from the Chemical Abstracts Service (CAS) or from Dun & Bradstreet (D-U-N-S). This information may also include knowledge gained through discussions, conferences, and technical publications. This definition is identical to the definition of the same term at 40 CFR 704.3. In addition, this is the same reporting standard employed in the TSCA section 8(a) Chemical Data Reporting (CDR) rule (*see* 40 CFR 711.15). EPA has also provided CDR reporting guidance materials on this reporting standard, including hypothetical examples of applying the "known to or reasonably ascertainable by" reporting standard in the context of collecting processing and use data for CDR (Ref. 6, pages 45-47). Therefore, EPA anticipates many reporters under this proposed rule will be familiar with this reporting standard, and resources are available to support those reporters who may not be familiar with the standard. EPA acknowledges that it is possible that an importer, particularly an importer of articles containing PFAS, may not have knowledge that they have imported PFAS and thus not report under this rule, even after they have conducted their due diligence under this reporting standard as described in this paragraph. Such an importer should document its activities to support any claims it might need to make related to due diligence.

In the event that a manufacturer does not have actual data (*e.g.*, measurements or

monitoring data) to report to EPA, the manufacturer would be required to make “reasonable estimates” of such information. “Reasonable estimates” may rely, for example, on approaches such as mass balance calculations, emissions factors, or best engineering judgment.

D. Why are small businesses not excluded from reporting similar to Chemical Data Reporting (CDR) and other Section 8(a) reporting?

Unlike TSCA section 8(a)(1), which provides an express exemption for small manufacturers and processors, TSCA section 8(a)(7) specifically states that “each person who has manufactured a chemical substance that is a perfluoroalkyl or polyfluoroalkyl substance” shall be subject to the rule. Rather than amend TSCA section 8(a)(1), Congress chose to add an entirely new, standalone subsection to TSCA section 8(a). This indicates an intent for TSCA section 8(a)(7) to constitute separate, freestanding rulemaking authority; therefore, it is not constrained by requirements and provisions in TSCA section 8(a)(1).

However, in carrying out TSCA section 8, EPA shall, to the extent feasible: (A) Not require reporting which is unnecessary or duplicative; (B) Minimize the cost of compliance with TSCA section 8 and the rules issued thereunder on small manufacturers and processors; and (C) Apply any reporting obligations to those persons likely to have information relevant to the effective implementation of this subchapter (TSCA section 8(a)(5)).

E. How will EPA use the information?

TSCA section 8(a)(7) is silent on how the information collected under the TSCA section 8(a)(7) rule is to be used. However, collecting information on PFAS identities, uses, production volumes by category of use, byproducts, environmental and health effects, workers exposure, and disposal supports the Agency’s mission in the PFAS Action Plan to identify and better understand these chemicals and to increase scientific research on them.

EPA intends to use information on these chemicals to support assessments of new and existing chemicals under TSCA. For instance, information collected under this proposed rule will help inform future assessments of potential exposure to these PFAS. The Agency would also benefit from receiving all existing information related to human health and environmental effects of such substances, in order to fulfill additional environmental protection mandates beyond the TSCA program. For instance, information on PFAS use, exposure, and effects may be used to inform regulatory activities under the Safe Drinking Water Act (42 U.S.C. 300f *et seq.*), the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*), and the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601 *et seq.*), while data on PFAS manufacturing sites and disposal methods may support contaminants characterizations conducted to support contaminated site work and solid waste management programs.

Additionally, TSCA section 9(e) requires the EPA Administrator to make information related to exposure or releases available to other EPA offices or federal agencies if such exposures may be prevented or reduced under another law. EPA may share such information collected under this proposed rule as appropriate.

III. Summary of Proposed Reporting and Recordkeeping Requirements

EPA is proposing reporting and recordkeeping requirements for manufacturers of PFAS pursuant to TSCA section 8(a)(7).

A. What chemical substances would be reportable under this rule?

1. *Reportable chemicals substances.* Under TSCA section 8(a)(7), EPA must collect information on chemical substances that are “perfluoroalkyl or polyfluoroalkyl” substances or PFAS. EPA has determined that any PFAS that fall within the structural definition, described below, are the PFAS referred to in TSCA section 8(a)(7). For this proposed rule, EPA has

identified at least 1,364 chemical substances and mixtures that are PFAS and would potentially be subject to reporting under the final rule, if they have been manufactured in any year since January 1, 2011.

For the purposes of this proposed action, the structural definition of PFAS includes per- and polyfluorinated substances that structurally contain the unit $R-(CF_2)-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons and none of the R groups (R , R' or R'') can be hydrogen. It should be noted that this structural definition of PFAS is a working definition which has been used by EPA's Office of Pollution Prevention and Toxics when identifying PFAS on the TSCA Inventory. This definition may not be identical to other definitions of PFAS used within EPA and/or other organizations. To assist potential reporters with determining whether certain substances may be covered under this structural definition, EPA has identified specific PFAS covered by this proposed rule. These will be included as non-exhaustive examples in the rule where it is possible to do so without divulging information claimed as CBI. The scope of PFAS examples listed in this proposal includes:

- All PFAS listed as active on the TSCA Inventory. This includes PFAS that are identified by CAS number; confidential chemicals whose generic names contain "fluor" and are identified by Accession number; and confidential chemicals whose generic names do not contain "fluor", and therefore, are not listed by CASRNs, Accession numbers, or low-volume exemptions (LVE) case numbers (see note on structural diagram examples below).

- All PFAS that are subject to TSCA section 5 (new chemicals) LVE applications per 40 CFR 723.50 that have been granted by EPA. This includes the PFAS that were subject to granted LVE applications that have since been withdrawn by the LVE application submitter. Additional discussion on LVEs is below.

Under TSCA section 5, any person who intends to manufacture a chemical not on the TSCA Inventory must first notify EPA. Typically, this is done by submission of a premanufacture notice (PMN) (Ref. 8). However, for low-volume chemical substances (i.e., chemical substances manufactured at no more than 10,000 kg per year) companies can submit a LVE application to EPA per 40 CFR 723.50. EPA may either grant or deny an LVE submission after review, but LVEs that are granted are not listed on the Inventory, unlike PMN chemical substances. Therefore, EPA is also providing a list of PFAS chemicals for which EPA granted an LVE notice.

LVE submitters may choose to withdraw their granted LVE application. In order to compile a comprehensive dataset as authorized under TSCA section 8(a)(7), EPA is including these withdrawn LVE submissions in the list of examples subject to this proposed rule if they were submitted since 2011.

- This proposed rule will also include structural diagrams to capture any PFAS whose CAS or Accession numbers could not be divulged due to CBI claims, whose identity is not listed on the TSCA Inventory because it is subject to an LVE, or which is a byproduct not listed on the Inventory and not subject to an LVE, yet meets the structural definition. The list of identified PFAS and structural diagrams can also be found in the docket (Ref. 7). The PFAS included in the list and identified by the structural diagrams are examples of substances that meet this rule's definition of PFAS; it is not a comprehensive list of all substances within this rule's scope.

EPA is providing these examples of PFAS for the purpose of assisting manufacturers in determining whether a chemical substance they have manufactured in any year since 2011 meets this proposed rule's definition of PFAS. Because the Inventory's active designation dates back to June 2006, it is possible for a firm to have manufactured one of these listed PFAS yet not be

required to report under this proposed rule, if they have manufactured it only in the period prior to January 1, 2011.

This list was developed as of April 2021. EPA anticipates updating this list prior to promulgating the final rule, both in response to public comment, and as a result of PMNs added to the Inventory and LVEs granted by EPA between April 2021 and the date of publication of the final rule.

For the purposes of this proposed rule, articles containing PFAS, including imported articles containing PFAS (such as articles containing PFAS as part of surface coatings), are included in the scope of reportable chemical substances. TSCA does not define articles, nor does the statute define articles as a category of substances exclusive of chemical substances. EPA therefore considers its ability to regulate chemical substances to encompass authority to regulate articles containing such chemical substances. Additionally, the Agency would benefit from collecting the requested information on PFAS-containing articles (including articles containing PFAS as part of surface coatings) because the information would improve the Agency's knowledge of various products which may contain PFAS, their categories of use, production volumes, and exposure data. Such data are not currently known to EPA. However, EPA acknowledges that some article manufacturers, including article importers, may not have such information known to or reasonably ascertainable by them and may not meet the reporting standard as described in Unit II.C. To this end, information that helps EPA better understand data gaps is useful information for EPA to have. Therefore, articles are within the scope of reportable substances under this proposed rule, though EPA is requesting comments on whether imported articles containing PFAS should be within scope (see Unit IV.1).

2. Proposed exceptions to reporting for duplicative reporting. TSCA section 8(a)(5)

requires EPA, to the extent feasible when carrying out TSCA section 8, to avoid requiring unnecessary or duplicative reporting. The Agency seeks to avoid collecting data on PFAS that would duplicate information already reported to the Agency. While developing this rule EPA reviewed the data elements submitted under the Chemical Data Reporting Rule and determined that there may be some overlap with the information requested under the proposed rule. EPA is proposing to allow reporting entities to indicate in the reporting tool that they have previously provided such information to EPA through CDR for certain data elements. The Agency has identified the following data elements which the reporter may be able to indicate has already been submitted to EPA:

- Physical state of the chemical or mixture;
- Industrial processing and use type, sector(s), functional category(ies), and percent of production volume for each use;
- Consumer and/or commercial indicator, product category(ies), functional category(ies), percent of production volume for each use, indicator for use in products intended for children, and maximum concentration in the product, and;
- Number of workers reasonably likely to be exposed for each combination of industrial processing or use operation, sector, and function, and the number of commercial workers reasonably likely to be exposed if the PFAS is contained in a commercial product.

If a manufacturer covered under this proposed rule has previously submitted required information to EPA for some years since 2011, but not for all years, EPA is proposing that the manufacturer may indicate in the reporting tool the year(s) for which the manufacturer has already submitted that data to EPA as part of CDR. For instance, CDR reporters are required to submit the total annual domestically manufactured production volume and the total annual

imported volume separately, only for the principal reporting year (e.g., 2019 for the 2020 reporting cycle), but reporting only the combined total annual production volume is required for the intervening years. In this case, a reporter under this proposed rule would be able to indicate that the two different production volumes have been previously submitted to EPA for the CDR reporting year(s), but would still need to report for the intervening year(s) not previously submitted under CDR. Additionally, there are some data elements for which CDR reporters may have previously reported information to EPA, although these data elements were only added to the CDR reporting requirements in 2020. Therefore, some manufacturers under this proposed rule may have submitted the following information to CDR for some years covered by this proposed rule, but not all, and would still be required to report this information for the missing year(s):

- Domestically manufactured production volume;
- Imported production volume;
- Volume directly exported; and
- Indicator for imported but never physically at site.

EPA welcomes public comment on concerns related to duplicative reporting (see Unit V.).

B. When would reporting be required?

EPA proposes that persons who have manufactured a PFAS at any time since January 1, 2011, would report to EPA during a six-month submission period, which would begin six months following the effective date of the final rule. Therefore, manufacturers would ultimately have one year following the effective date of the final rule to collect and submit all required information to EPA. EPA believes by providing six months between the effective date of the rule

and the start of the submission period, this would allow sufficient time for both the Agency to finalize the reporting tool and for reporters to familiarize themselves with the rule and compile the required information. Since this section 8(a)(7) reporting rule will be collecting similar information as CDR, EPA anticipates many reporters will be familiar with the types of information requested and how to report. The CDR submission period is four months, every four years. Since this proposed rule spans a longer time than the four-year CDR reporting cycle, EPA acknowledges additional time may be needed in the PFAS submission period. EPA believes that six months is adequate time for submissions, in addition to the six-month period between the effective date and the start of the submission period.

EPA is also asking for public comment on the submission period start date and duration (see Unit V.).

C. What information would be reported?

TSCA section 8(a)(7) specifies that, under the final rule, manufacturers would report on “information described in subparagraphs (A) through (G) of paragraph (2) [of section 8].” Therefore, this TSCA section 8(a)(7) rule proposes one-time reporting of the information described in section 8(a)(2)(A) through (G), which includes specific chemical identity, categories of use, production volume, byproducts, environmental and health effects, number of persons exposed and duration of exposure, and disposal.

Specifically, EPA is proposing to request the following information:

1. Chemical name (multiple if mixture), or the generic name(s) if the chemical name(s) is CBI.
2. Chemical ID(s) (CASRN, TSCA Accession Number, or LVE case number).
3. Trade name or common name.

4. Representative molecular structure.
5. Physical form of chemical or mixture.
6. Industrial processing and use:
 - a. Type of process or use;
 - b. Sector(s);
 - c. Functional use category(ies);
 - d. Percent of production volume for each use.
7. Consumer and commercial use:
 - a. Indicator for whether this is a consumer and/or commercial product;
 - b. Product category; functional use category(ies);
 - c. Percent production volume for each use; maximum concentration in any product;
 - d. Indicator for use in products intended for children.
8. Production volumes:
 - a. Domestically manufactured;
 - b. Imported;
 - c. Directly exported;
 - d. Maximum first 12 months production volume;
 - e. Maximum yearly production volume in any 3 years.
9. Indicator for imported but never physically at site.
10. Indicator for site-limited.
11. Maximum quantity stored on-site at any time.
12. Total volume recycled (on-site).
13. For byproducts produced during the manufacture, processing, use, or disposal of

each PFAS:

a. Chemical name(s) or description (if identity is unknown), or the generic name(s) if the byproduct name(s) is CBI;

b. Chemical ID(s) (CASRN, TSCA Accession Number, or LVE case number);

c. Indicator for whether the byproduct(s) production resulted from manufacture, process, use, or disposal; and

d. Indicator for whether the byproduct(s) is released to the environment; if so, volume of byproduct(s) released and to which environmental media.

14. Worker exposure: Description of worker activity(ies) at manufacturing site.

15. Worker exposure at the manufacturing site:

a. Number of workers reasonably likely to be exposed at the manufacturing site, for each worker activity;

b. Maximum duration of exposure for any worker, for each worker activity (both hours per day and days per year).

16. Worker exposure for each industrial process and use:

a. Number of workers reasonably likely to be exposed for each industrial process and use;

b. Maximum duration of exposure for any worker for each industrial process and use (both hours per day and days per year).

17. Worker exposure for each commercial use:

a. Number of workers reasonably likely to be exposed for each commercial use;

b. Maximum duration of exposure for any worker for each commercial use (both hours per day and days per year).

18. Description of disposal process(es), and description of any changes to the disposal

process or methods since 2011.

19. Total volume released:

- a. Land disposal;
- b. Water releases;
- c. Air releases.

20. Total volume incinerated (on-site) and incineration temperature.

21. All existing information related to health and environmental effects, using the Organization of Economic Cooperation and Development (OECD) harmonized template relevant to the existing study, as well as full study reports and any other supporting information (for additional information on the use of the OECD harmonized templates, see the discussion in the following section, Unit III.D.).

22. Other data relevant to health and environmental effects (*e.g.*, range-finding studies, preliminary studies, OSHA medical screening or surveillance standards reports, adverse effects reports).

A list of the proposed reporting requirements is available in the docket for public review (Ref. 10).

EPA developed an information reporting platform for CDR (Ref. 9) and intends to modify it for purposes of this proposed rule. Certain information that is requested in the CDR that falls under TSCA section 8(a)(2)(A) through (G) would be required by this proposed rule, such as information on specific chemical identity, categories of use, production volume, byproducts, and number of persons exposed and duration of exposure (see Unit III.A.2. for the discussion on duplicative reporting). In instances where PFAS manufacturers under this proposed rule have already reported the requested information to EPA, they will not be required

to re-report. As discussed in Unit III.A.2, EPA is proposing the reporters simply indicate they have already submitted such information to EPA.

Additionally, any person required to report under this proposed rule would supply the information identified in the form to the extent it is known to or reasonably ascertainable by them, or a reasonable estimate when actual data are not available (i.e., known or reasonably ascertainable), as explained in more detail in Unit II.D.

D. What type of environmental and health effects information is the Agency requesting?

EPA is requesting “all existing information concerning the environmental and health effects” of the PFAS chemicals covered by this rule. It is intended that “environmental and health effects information” be interpreted broadly. This information would include but is not limited to:

- Toxicity information (*e.g.*, in silico, in vitro, animal test results, human data); and
- Other data relevant to environmental and health effects including range-finding studies, preliminary studies, OSHA medical screening or surveillance standards reports, adverse effects reports.

Chemical identity is always part of a health and safety study, and TSCA section 14(b) limits the extent to which health and safety studies and information from studies may be withheld from the public as confidential.

EPA is proposing to require all existing information concerning health and environmental effects be submitted in the format of OECD harmonized templates, where such templates exist for the type of data, in addition to submitting full study reports. OECD templates are accessible to the public online at <https://www.oecd.org/ehs/templates/harmonised-templates.htm> (Ref. 11). A standardized format such as the OECD templates will improve the efficiency of review and

organization of the submitted data. EPA believes that some of the data will already be in the OECD template if the company had already submitted the studies under the European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation. In addition to the required template format, those subject to this rulemaking must submit any associated full study reports or underlying data as support documents. The full study reports and support documents are necessary for EPA to understand the full context and evaluate the quality of the data, which is necessary for the Agency to review if data were to be used for any future Agency actions.

EPA is requesting comments on what environmental and health effects information should be within the scope of this rule. EPA is also requesting comment on whether any information proposed to be requested is duplicative of information collected by EPA under other federal statutes and, thus, should be excluded. Please identify the information that you believe is duplicative and the statute under which it is submitted.

E. How would information be submitted to EPA?

EPA is proposing to require electronic reporting similar to the requirements established in 2013 for submitting other information under TSCA (see 40 CFR 704.20(e)). EPA is proposing to require submitters to use EPA's CDX, the Agency's electronic reporting portal, for all reporting under this rule. In 2013, EPA finalized a rule to require electronic reporting of certain information submitted to the Agency under TSCA sections 4, 5, 8(a) and 8(d) (Ref. 12, page 72818). The final rule followed two previous rules requiring similar electronic reporting of information submitted to EPA for TSCA CDR and for PMNs. In proposing to require similar electronic reporting under this rule, EPA intends to save time, improve data quality and increase efficiencies for both the submitters and the Agency.

EPA developed the Chemical Information Submission System (CISS) for use in submitting data electronically to the Agency for TSCA sections 4, 5, 6, 8(a), 8(b), 8(d), 8(e), and Title VI. CISS, a web-based reporting tool housed within the CDX environment, provides submitters with user-friendly applications to build and submit data packages to EPA within a secure, encrypted environment. CISS applications provide for the capture of both fielded data as well as the attachment of additional information using a wide variety of file types. Submitted information is rendered into PDF and XML formats, which are provided to submitters in the form of a Copy of Record.

EPA is proposing to require submitters to follow the same submission procedures used for other TSCA submissions, i.e., to register with EPA's CDX and use CISS to prepare a data file for submission. Registration enables CDX to authenticate user identity. To submit electronically to EPA via CDX, individuals must first register with CDX at <http://cdx.epa.gov/>. To register in CDX, the CDX registrant (also referred to as “Electronic Signature Holder” or “Public/Private Key Holder”) agrees to the Terms and Conditions, provides information about the submitter and organization, selects a user name and password, and follows the procedures outlined in the guidance document for CDX available at <https://cdx.epa.gov/FAQ#CSPP>.

Within CDX, CISS is available under the “Submission for Chemical Safety and Pesticide Program (CSPP)” CDX flow. Users who have previously submitted under TSCA through CDX, including submitting information under sections 4 and 5, CDR, or reporting under the TSCA Inventory Notification (Active-Inactive) Requirements rule (82 FR 37520, Aug. 11, 2017) (FRL-9964-22), will already have the CSPP flow linked to their account. Users reporting to EPA using other CDX housed applications, including the Toxics Release Inventory TRI-MEweb, would be able to add the CSPP flow to their existing CDX accounts.

All submitters would be required to use CISS to prepare their submissions. CISS guides users through a “hands-on” process of creating an electronic submission. Once a user completes the relevant data fields and attaches appropriate PDF files, or other file types, such as XML files, the web-based tool validates the submission by performing a basic error check and makes sure all the required fields and attachments are provided and complete. Further instructions for uploading PDF attachments or other file types, such as XML, and completing metadata information would be available through CISS reporting guidance.

CISS, a web-based reporting tool, also allows the user to choose to “Preview,” “Save,” or “Submit” the data package. Once the submission process is initiated, the user is asked to certify the information and provide requested information to complete the submission process. The data package is then sent, in an encrypted state, to the Agency. The user can login to the application and check the submission status of their data package. Upon successful receipt of the submission by EPA, the submission status of the submissions will be flagged as “Completed” and a confirmation email will be sent to the submitter’s CDX inbox. The CDX inbox is used to notify the users when submissions are received by EPA or to notify users when a submission-specific communication has been received and how to locate and access the communication. Information on accessing the CDX user inbox is provided in the guidance document for CDX at

<https://cdx.epa.gov/FAQ#CSPP>. To access CISS log into CDX using the link:

<https://cdx.epa.gov/> and click on the appropriate user role associated with the CSPP data flow.

For further instructions, visit *<https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/electronic-reporting-requirements-certain-information>* (Ref. 12). Procedures for reporting chemical substances under this proposed rule would be similar.

EPA believes that electronic reporting reduces the reporting burden for submitters by

reducing the cost and time required to review, edit, and transmit data to the Agency. It also allows submitters to share a draft submission within their organization, and more easily save a copy for their records or future use. Additionally, EPA believes that many of the anticipated reporters under this proposed rule have experience with reporting electronically to EPA through CDX. The resource and time requirements to review and process data by the Agency will also be reduced and document storage and retrieval will require fewer resources. EPA expects to benefit from receiving electronic submissions and communicating electronically with submitters.

F. What can a submitter claim as confidential?

The 2016 amendments to TSCA included new procedural requirements for the submission and Agency management of CBI claims, including new substantiation requirements, generic name requirements, a certification requirement, and a requirement for Agency review of specified CBI claims within 90 days after receipt of the claim, 15 U.S.C. 2613. The Agency recently finalized a rule amending the CDR reporting requirements that implemented the new requirements for confidentiality claims in CDR submissions (Ref. 13). EPA is similarly proposing that a person submitting a reporting form under this action may claim portions of the form as confidential, consistent with TSCA section 14. TSCA requires that the submitter make several statements relating to the treatment of the information as confidential and competitive harm of disclosure, and to certify that these statements and any substantiation provided are true and correct. Consistent with the format of other TSCA reporting forms, the statements and certification would be combined into a single certification statement. There is also a requirement that when a chemical identity is claimed as CBI, a non-CBI structurally descriptive generic name be provided. To help reporters, EPA's reporting platform can auto-populate generic names on the Inventory using EPA's Substance Registry Services (SRS).

TSCA section 14 further requires that substantiation be provided when a confidentiality claim is asserted. However, TSCA section 14(c)(2) exempts certain information from the substantiation requirements (*e.g.*, specific production volume). Under the proposed rule, specific production or import volumes of the manufacturer, as well as the percent production volume for each consumer or commercial use, need not be substantiated. All other information submitted under this proposed rule would not be exempt from substantiation requirements.

Any information which is claimed as confidential will be disclosed by EPA only in accordance with the procedures and requirements of TSCA section 14 and 40 CFR part 2. TSCA limits confidentiality protections for health and safety studies, information from health and safety studies (except to the extent such studies or information reveals “information that discloses processes used in the manufacturing or processing of a chemical substance or mixture or, in the case of a mixture, the portion of the mixture comprised by any of the chemical substances in the mixture”), and certain other information. Submitters asserting a confidentiality claim for such information in health and safety studies will be required to submit a sanitized copy of the study, removing only that information which is claimed as confidential and that discloses the process or portion of mixture information described in TSCA section 14(b).

G. What are the recordkeeping requirements?

EPA proposes that each person who is subject to the reporting requirements must retain records that document any information reported to EPA. Consistent with the CDR rule, EPA is proposing a five-year recordkeeping period, beginning on the last date of the submission period. The five-year retention requirement corresponds with the statute of limitations for violations and is necessary to preserve records to support future regulatory activities that would be informed by this information collection. Further, EPA believes the burden of retaining these records, which

are likely electronic, is minimal.

IV. Request for Comments

EPA is seeking public comment on all aspects of this proposed rule and the Economic Analysis prepared in support of this proposed rule (Ref. 14). In addition to specific requests for comment included throughout this document, EPA is interested in comments pertaining to the specific issues discussed in this unit. EPA encourages all interested persons to submit comments on the issues identified in this Notice and to identify any other relevant issues as well. This input will assist the Agency in developing a final rule that successfully addresses information needs while minimizing potential reporting burdens associated with the rule. EPA requests that commenters making specific recommendations include supporting documentation where appropriate.

1. *Identifying the chemical substances that would be subject to reporting.* EPA has provided a structural definition of PFAS for the purposes of this proposed rule's scope. To assist reporting entities with determining whether a chemical substance or mixture falls within this scope, EPA has also provided a list of PFAS (identified by CASRN, TSCA Accession Number, or LVE case number) and structural diagrams to include any PFAS whose chemical identity is not specifically listed due to CBI protections. EPA is soliciting comment on this approach for defining or identifying PFAS. Additionally, EPA is interested in comments identifying specific substances of interest and the rationale for the interest, that may be outside the scope of this proposed definition. EPA is also interested in public comments related to including imported articles containing PFAS within the scope of this proposed rule.

2. *Considerations for the Agency's economic analysis.* EPA has evaluated the potential costs for PFAS manufacturers for this proposed rule (Ref. 14). EPA is specifically seeking

additional information and data that EPA could consider in developing the final economic analysis. In particular, EPA is seeking data that could facilitate the Agency's further evaluation of the potentially affected industry and firms, including data related to potential impacts for those small businesses and importers that would be subject to reporting. The agency is specifically interested in available data on small entity importers of articles containing PFAS for its impact analysis for small entities. EPA is also especially interested in available data or other measures of the number of facilities or firms that might manufacture such materials, including importing PFAS in articles.

3. *Submission period.* EPA is proposing a six-month submission period for reporting entities, which will begin six months following the effective date of the final rule. Thus, PFAS manufacturers will have one year following the effective date of the final rule to submit all required information to EPA. Since many of the reporters under this proposed rule have reported under CDR, EPA is basing the proposed submission period, in part, on the CDR submission period. Given the four-month submission period for the CDR reporting cycle every four years, the Agency believes six months is sufficient time for manufacturers to report the required information under this proposed rule, noting that the scope of this rule covers more years than a CDR reporting cycle. Reporters will also have the additional six months between the effective date of the rule and the start of the submission period for rule familiarization and data gathering. Additionally, the six months between the effective date of the final rule and the beginning of the submission period allows the Agency time to finalize the reporting software. Congress required EPA to promulgate the rule no later than January 1, 2023; therefore, EPA anticipates the reporting period for this proposed rule will precede the reporting period for the 2024 CDR reporting cycle (June—September 2024). EPA is specifically asking for comment on additional

considerations related to the start date and duration of the submission period.

4. *Duplicative reporting.* EPA has identified the data elements in this proposed rule for which information may have been submitted to EPA previously under CDR (see Unit III.D.), which the Agency is proposing to allow manufacturers to indicate through the reporting tool has already been submitted rather than re-submit the information. EPA is requesting comment on whether any additional data elements may be duplicative of information collected by EPA under TSCA or other federal statutes. Please identify the information that you believe is duplicative and the statute under which it is submitted, as well as the precision of the information if appropriate (for example, whether the data are submitted as a range or as an integer to the nearest significant digits).

5. *Scope of environmental and health effects information collected.* EPA is requesting comment on what existing environmental and health effects information should be within the scope of this rule. EPA is proposing to require such information be submitted in the form of OECD harmonized templates, to the extent they are available, and as full study reports and any supporting documents. The Agency is requesting comments on the scope of existing environmental and health information that may be requested from PFAS manufacturers. The Agency is also interested in comments on the proposed format of these submissions.

6. *Additional information or data elements.* EPA has provided the list of proposed data elements for this rule in Unit III.C (Ref. 10), which EPA is authorized to request under section 8(a)(7). EPA is interested in public comment on the scope of these proposed data elements, including whether there are additional data elements EPA should collect under the authority of section 8(a)(7). Specifically, EPA is interested in comments on whether the final rule should include a data field allowing reporters to provide generic names or descriptions in the event a

manufacturer is aware they have produced or imported a PFAS but are not able to reasonably ascertain the specific PFAS identity. The Agency is also requesting comments on additional data elements such as composition information if a PFAS has a variable composition, analytical methods, and whether occupational exposure information should distinguish occupational non-users (i.e., those nearby but not in direct contact with the chemical) from workers (i.e., those who are in direct contact with the chemical).

7. *EPA's use and publication of certain non-CBI data.* EPA is requesting public comment on how the Agency may consider using the data received under this reporting rule, beyond those activities previously mentioned in Unit II.E. Additionally, the Agency is interested in comment on the extent to which non-CBI data submitted under this rule should be provided to the general public.

8. *Joint submissions.* EPA is requesting public comment on whether the Agency should enable the use of joint submissions in specific circumstances, similar to CDR joint submissions. Joint submissions may be necessary under circumstances when: (1) A company imports a chemical or a mixture under a trade name and the substance identity, or individual components, are not known to the importer, or (2) a manufacturer cannot provide the entire chemical identity of a chemical substance it manufactures because the chemical substance is manufactured using a reactant having an identity that the reactant supplier claims as confidential. In these circumstances, the supplier has identified that it will not disclose to the manufacturer (or importer) or does not, itself, know the chemical identity.

9. *Small manufacturers.* EPA is requesting public comment on how the Agency may assist small manufacturers with compliance with this proposed rule. The Agency appreciates comments related to both regulatory and non-regulatory assistance, such as different reporting

timelines and outreach.

V. References

The following is a list of the documents that are specifically referenced in this document. The docket includes these documents and other information considered by EPA, including documents that are referenced within the documents that are included in the docket, even if the referenced document is not physically located in the docket. For assistance in locating these other documents, please consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

1. EPA (2019). EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan, EPA-823R-18-004. February 14, 2019. Available at https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf.
2. EPA (2017). Technical Fact Sheet – Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA), EPA 505-F-17-001. November 2017. Available at https://www.epa.gov/sites/production/files/2017-12/documents/ffrrofactsheet_contaminants_pfos_pfoa_11-20-17_508_0.pdf.
3. EPA (2009). Long-Chain Perfluorinated Chemicals (PFCs) Action Plan. December 30, 2009. Available at https://www.epa.gov/sites/production/files/2016-01/documents/pfcs_action_plan1230_09.pdf.
4. ATSDR (2018). Toxicology Profile for Perfluoroalkyls. June 2018. Available at <https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf>.
5. EPA. TSCA Chemical Substance Inventory. (No date). Available at <https://www.epa.gov/tsca-inventory>. [Accessed November 12, 2020].
6. EPA. Instructions for Reporting: 2020 TSCA Chemical Data Reporting. November

2020. Available at https://www.epa.gov/sites/production/files/2020-12/documents/instructions_for_reporting_2020_tsca_cdr_2020-11-25.pdf.

7. EPA. Examples of PFAS and Structural Diagrams included in the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS. October 2020.

8. EPA. Filing a Pre-manufacture Notice with EPA. (No date). Available at <https://www.epa.gov/reviewing-new-chemicals-under-toxic-substances-control-act-tsca/filing-pre-manufacture-notice-epa>. [Accessed November 12, 2020].

9. EPA (2020). CDX Chemical Safety and Pesticide Programs (CSPP) Registration User Guide; Version 3.02. March 6, 2020. Available at <https://www.epa.gov/chemical-data-reporting/cspp-cdx-registration-guide>.

10. EPA. Data Elements included in the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS. October 2020.

11. OECD. OECD Harmonised Templates. (No date). Available at <https://www.oecd.org/ehs/templates/harmonised-templates.htm>. [Accessed November 12, 2020].

12. EPA (2013). Electronic Reporting under the Toxic Substances Control Act; Final Rule. (78 FR 72818, December 4, 2013) (FRL-9394-6).

13. EPA (2020). TSCA Chemical Data Reporting Revisions Under TSCA Section 8(a); Final Rule. (85 FR 20122, April 9, 2020) (FRL-10005-56).

14. EPA (2020). Economic Analysis for the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS. November 2020.

15. EPA (2020). Information Collection Request Supporting Statement. Proposed Rule ICR: Reporting and Recordkeeping Requirements for PFAS. EPA ICR No. 2682.01. November 2020.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011). EPA prepared an analysis of the estimated costs and benefits associated with this action (Ref. 13), which is available in the docket and is summarized in Unit I.E. Any changes made in response to OMB recommendations have been documented in the docket for this action as required by section 6(a)(3)(E) of Executive Order 12866.

B. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR number 2682.01 (Ref. 15). You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

The reporting requirements identified in the proposed rule would enable EPA to meet the statutory obligations required by TSCA section 8(a)(7) and collect data related to the identities, manufacture, use, exposure, and disposal of PFAS manufactured in the United States since 2011. These proposed reporting requirements would also help the Agency to collect existing information on the health and environmental effects of PFAS. EPA intends to use information

collected under the rule to assist in chemical assessments under TSCA, and to inform any additional work necessary under environmental protection mandates beyond TSCA. Respondents may claim some of the information reported to EPA under the proposed rule as CBI under TSCA section 14. TSCA section 14(c) requires a supporting statement and certification for confidentiality claims asserted after June 22, 2016.

Respondents/affected entities: Manufacturers (including importers) of PFAS since January 1, 2011.

Respondent's obligation to respond: Mandatory (15 U.S.C. 2607(a)(7)).

Estimated number of respondents: 234

Frequency of response: Once.

Total estimated burden: 122,104 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$9,820,813 (per year), includes no annualized capital or operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to oir_submissions@omb.eop.gov, Attention: Desk Officer for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE

FEDERAL REGISTER]. The EPA will respond to any ICR-related comments in the final rule.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA (5 U.S.C. 601 *et seq.*). The small entities subject to the requirements of this action are manufacturers (including importers) of PFAS. EPA estimates that 59 small firms would be affected by the proposed rule. Of those small firms, 46% would have cost impacts of less than 1% of annual revenues, 19% would have impacts between 1-3%, and 35% would have impacts of more than 3% of annual revenues. The affected small businesses subject to the proposed rule are expected to incur \$1,788,506 in costs for this one-time reporting, with per-firm costs estimated to range from \$16,864 to \$92,390. However, EPA is unable to estimate the number of small entity importers of articles that are subject to this proposed rule due to a lack of available data on importers of articles containing PFAS. Imported articles are exempt from the CDR Rule under 40 CFR 711.10(b). Similarly, under TRI reporting, listed toxic chemicals contained in articles that are processed or otherwise used at a covered facility are exempt from reporting threshold determinations and release and other waste management calculations. EPA is unaware of publicly available data that provides the information on the article importers needed to develop the estimates. Without available data, EPA does not have a representative subset of firms to reference as a basis for estimates and thus cannot estimate the number of importers of articles that will be affected.

However, EPA expects that article importers may incur a range of costs depending on the number of articles they import, their level of knowledge of their imported articles, the complexity of supply chains, and whether PFAS is present in their articles. Importers of articles that contain PFAS may incur costs for rule familiarization (\$69.79 per firm); identifying the type

of imported articles that potentially use PFAS (\$1,641-\$1,932 per firm); identifying suppliers involved (\$1,185 per firm); collecting data from suppliers (\$0-644 per article); and recordkeeping (\$12 per firm). Details of this analysis are presented in the Economic Analysis of the proposed rule (Ref. 14), which is available in the docket.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The requirements of this action would primarily affect manufacturers (including importers) of PFAS. The total quantified one-time costs of the proposed rule are approximately \$9.8 million.

E. Executive Order 13132: Federalism

This action does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It will not have substantial direct effects on tribal governments, on the relationship between the Federal government and the Indian tribes, or on the distribution of power and responsibilities between the Federal government and Indian tribes. Thus, E.O. 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to

those regulatory actions that concern environmental health or safety risks that the Agency has reason to believe may disproportionately affect children, per the definition of “covered regulatory action” in section 2-202 of the Executive Order. This action is not a covered regulatory action because it is not “economically significant” under Executive Order 12866 and it does not concern an environmental health risk or safety risk. Although this action would not establish an environmental standard intended to mitigate health or safety risks, the information that would be submitted to EPA in accordance with this proposed rule would be used to inform the Agency's decision-making process regarding chemical substances to which children may be disproportionately exposed. This information may also assist the Agency and others in determining whether the chemical substances covered in this proposed rule present potential risks, which would allow the Agency and others to take appropriate action to investigate and mitigate those risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” as defined in Executive Order 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy and has not otherwise been designated by the Administrator of OMB’s Office of Information and Regulatory Affairs as a “significant energy action.”

I. National Technology Transfer and Advancement Act (NTTAA)

Because this action does not involve any technical standards, NTTAA section 12(d), 15 U.S.C. 272 note, does not apply to this action.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

The requirements of the proposed rule are directed at manufacturers (including importers) of PFAS chemicals for which basic production, use, and toxicity information is currently unavailable. The costs and the benefits of the proposed rule would not be disproportionately distributed across different geographic regions or among different categories of individuals. Consumers of these chemical products, workers who come into contact with these chemical substances, and communities neighboring PFAS manufacturing sites could benefit from EPA's assessment of information required under the proposed rule. The Agency believes that the information collected under this proposed rule, if finalized, will assist EPA and others in determining the potential hazards and risks associated with PFAS chemicals. Although not directly impacting environmental justice-related concerns, this information will enable the Agency to better protect human health and the environment, including in low-income and minority communities.

List of Subjects in 40 CFR Part 705

Chemicals, Environmental protection, Hazardous Materials, Recordkeeping, and Reporting Requirements.

Dated: June 10, 2021.

Michal Freedhoff,

Principal Deputy Assistant Administrator, Office of Chemical Safety and Pollution Prevention.

Therefore, for the reasons stated in the preamble, the Environmental Protection Agency proposes to amend 40 CFR chapter I by adding part 705 to read as follows:

PART 705--REPORTING AND RECORDKEEPING REQUIREMENTS FOR CERTAIN PER- AND POLYFLUOROALKYL SUBSTANCES

Sec.

- 705.1. Scope.
- 705.3. Definitions.
- 705.5. Substances for which reports must be submitted.
- 705.10. Persons who must report.
- 705.15. What information to report.
- 705.20. When to report.
- 705.22. Duplicative reporting.
- 705.25. Recordkeeping requirements.
- 705.30. Confidentiality claims.
- 705.35. Electronic reporting.

Authority: 15 U.S.C. 2607 (a)(7).

§ 705.1. Scope.

This part specifies reporting and recordkeeping procedures for manufacturers (including importers) of certain per- and polyfluoroalkyl substances (hereafter referred to as PFAS) under section 8(a)(7) of the Toxic Substances Control Act (TSCA).

§ 705.3. Definitions.

Central Data Exchange or *CDX* means EPA's centralized electronic submission receiving system.

Chemical Information Submission System or *CISS* means EPA's electronic, web-based reporting tool for the completion and submission of data, reports, and other information, or its successors.

Commercial use means the use of a chemical substance or a mixture containing a chemical substance (including as part of an article) in a commercial enterprise providing saleable

goods or services.

Consumer use means the use of a chemical substance or a mixture containing a chemical substance (including as part of an article) when sold to or made available to consumers for their use.

Environmental or health effects information means any information of any effect of a chemical substance or mixture on health or the environment or on both. This includes all health and safety studies.

(1) Not only is information which arises as a result of a formal, disciplined study included, but other information relating to the effects of a chemical substance or mixture on health or the environment is also included. Any information that bears on the effects of a chemical substance on health or the environment would be included.

(2) Examples are:

(i) Long- and short-term tests of mutagenicity, carcinogenicity, or teratogenicity; data on behavioral disorders; dermatotoxicity; pharmacological effects; mammalian absorption, distribution, metabolism, and excretion; cumulative, additive, and synergistic effects; and acute, subchronic, and chronic effects.

(ii) Tests for ecological or other environmental effects on invertebrates, fish, or other animals, and plants, including: Acute toxicity tests, chronic toxicity tests, critical life-stage tests, behavioral tests, algal growth tests, seed germination tests, plant growth or damage tests, microbial function tests, bioconcentration or bioaccumulation tests, and model ecosystem (microcosm) studies.

(iii) Assessments of human and environmental exposure, including workplace exposure, and impacts of a particular chemical substance or mixture on the environment, including surveys,

tests, and studies of: Biological, photochemical, and chemical degradation; structure/activity relationships; air, water, and soil transport; biomagnification and bioconcentration; and chemical and physical properties, *e.g.*, boiling point, vapor pressure, evaporation rates from soil and water, octanol/water partition coefficient, and water solubility.

(iv) Monitoring data, when they have been aggregated and analyzed to measure the exposure of humans or the environment to a chemical substance or mixture.

Health and safety studies means any study of any effect of a chemical substance or mixture on health or the environment or on both, including underlying information and epidemiological studies, studies of occupational exposure to a chemical substance or mixture, toxicological, clinical, and ecological studies of a chemical substance or mixture, and any test performed pursuant to this Act.

Known to or reasonably ascertainable by means all information in a person's possession or control, plus all information that a reasonable person similarly situated might be expected to possess, control, or know.

Industrial function means the intended physical or chemical characteristic for which a chemical substance or mixture is consumed as a reactant; incorporated into a formulation, mixture, reaction product, or article; repackaged; or used.

Industrial use means use at a site at which one or more chemical substances or mixtures are manufactured (including imported) or processed.

Intended for use by children means the chemical substance or mixture is used in or on a product that is specifically intended for use by children age 14 or younger. A chemical substance or mixture is intended for use by children when the submitter answers “yes” to at least one of the following questions for the product into which the submitter's chemical substance or mixture is

incorporated:

(1) Is the product commonly recognized (i.e., by a reasonable person) as being intended for children age 14 or younger?

(2) Does the manufacturer of the product state through product labeling or other written materials that the product is intended for or will be used by children age 14 or younger?

(3) Is the advertising, promotion, or marketing of the product aimed at children age 14 or younger?

Manufacture means to manufacture for commercial purposes.

Manufacture for commercial purposes means: (1) To import, produce, or manufacture with the purpose of obtaining an immediate or eventual commercial advantage for the manufacturer, and includes among other things, such “manufacture” of any amount of a chemical substance or mixture:

(i) For commercial distribution, including for test marketing.

(ii) For use by the manufacturer, including use for product research and development, or as an intermediate.

(2) Manufacture for commercial purposes also applies to substances that are produced coincidentally during the manufacture, processing, use, or disposal of another substance or mixture, including both byproducts that are separated from that other substance or mixture and impurities that remain in that substance or mixture. Such byproducts and impurities may, or may not, in themselves have commercial value. They are nonetheless produced for the purpose of obtaining a commercial advantage since they are part of the manufacture of a chemical product for a commercial purpose.

Manufacturer means a person who manufactures a chemical substance.

Per- and polyfluoroalkyl substances or PFAS, for the purpose of this part, means any chemical substance or mixture that structurally contains the unit $R-(CF_2)-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons. None of the R groups (R , R' or R'') can be hydrogen.

Site-limited means a chemical substance is manufactured and processed only within a site and is not distributed as a chemical substance or as part of a mixture or article outside the site. Imported chemical substances are never site-limited.

Worker means someone at a site of manufacture, import, or processing who performs work activities near sources of a chemical substance or mixture or directly handles the chemical substance or mixture during the performance of work activities.

§ 705.5 Substances for which reports must be submitted.

The requirements of this part apply to all chemical substances and mixtures that are PFAS, consistent with the definition of PFAS at § 705.3. This includes, but is not limited to, all PFAS listed or otherwise described in this section. This section contains 5 listings of examples of chemical substances or mixtures that meet this definition. Paragraph (a) of this section is a list of chemical substances on the TSCA Inventory that have an associated Chemical Abstract Services (CAS) Registry Number. Paragraph (b) of this section is a list of chemical substances that have an associated TSCA Accession Number. Paragraph (c) of this section is a list of chemical substances that have both an associated low-volume exemption (LVE) case number and a non-confidential CASRN. Paragraph (d) of this section is a list of chemical substances with an LVE case number but no CASRN. Paragraph (e) of this section is a list of structural diagram examples of PFAS and those CASRNs.

(a) Examples of PFAS by CAS Registry Number.

CASRN	Chemical Name
76-14-2	Ethane, 1,2-dichloro-1,1,2,2-tetrafluoro-
76-15-3	Ethane, 1-chloro-1,1,2,2,2-pentafluoro-
76-16-4	Ethane, 1,1,1,2,2,2-hexafluoro-
76-19-7	Propane, 1,1,1,2,2,3,3,3-octafluoro-
115-25-3	Cyclobutane, 1,1,2,2,3,3,4,4-octafluoro-
124-73-2	Ethane, 1,2-dibromo-1,1,2,2-tetrafluoro-
306-91-2	Phenanthrene, 1,1,2,2,3,3,4,4,4a,4b,5,5,6,6,7,7,8,8,8a,9,9,10,10,10a-tetracosafuorotetradecahydro-
306-94-5	Naphthalene, 1,1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-octadecafluorodecahydro-
307-24-4	Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-
307-30-2	1-Octanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-
307-34-6	Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-octadecafluoro-
307-35-7	1-Octanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-
307-55-1	Dodecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-tricosafuoro-
307-60-8	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12-pentacosafuoro-12-iodo-
307-63-1	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14-nonacosafuoro-14-iodo-
307-70-0	1-Undecanol, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11-eicosafuoro-
307-98-2	2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester
311-89-7	1-Butanamine, 1,1,2,2,3,3,4,4,4-nonafluoro-N,N-bis(1,1,2,2,3,3,4,4,4-nonafluorobutyl)-
335-27-3	Cyclohexane, 1,1,2,2,3,3,4,5,5,6-decafluoro-4,6-bis(trifluoromethyl)-
335-36-4	Furan, 2,2,3,3,4,4,5-heptafluorotetrahydro-5-(1,1,2,2,3,3,4,4,4-nonafluorobutyl)-
335-42-2	Butanoyl fluoride, 2,2,3,3,4,4,4-heptafluoro-
335-57-9	Heptane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-hexadecafluoro-
335-66-0	Octanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-
335-67-1	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-
335-71-7	1-Heptanesulfonyl fluoride, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
335-76-2	Decanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-nonadecafluoro-
335-95-5	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, sodium salt (1:1)
336-08-3	Hexanedioic acid, 2,2,3,3,4,4,5,5-octafluoro-
336-59-4	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-, 1,1'-anhydride
338-83-0	1-Propanamine, 1,1,2,2,3,3,3-heptafluoro-N,N-bis(1,1,2,2,3,3,3-heptafluoropropyl)-
338-84-1	1-Pentanamine, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N,N-bis(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)-
354-64-3	Ethane, 1,1,1,2,2-pentafluoro-2-iodo-
354-87-0	Ethanesulfonyl fluoride, 1,1,2,2,2-pentafluoro-
355-02-2	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-undecafluoro-6-(trifluoromethyl)-
355-25-9	Butane, 1,1,1,2,2,3,3,4,4,4-decafluoro-

355-38-4	Hexanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-
355-42-0	Hexane, 1,1,1,2,2,3,3,4,4,5,5,6,6,6-tetradecafluoro-
355-43-1	Hexane, 1,1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-6-iodo-
355-46-4	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-
355-50-0	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16 -tritriacontafuoro-16-iodo-
355-80-6	1-Pentanol, 2,2,3,3,4,4,5,5-octafluoro-
356-24-1	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-, methyl ester
356-27-4	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-, ethyl ester
356-42-3	Propanoic acid, 2,2,3,3,3-pentafluoro-, 1,1'-anhydride
375-00-8	Butanenitrile, 2,2,3,3,4,4,4-heptafluoro-
375-01-9	1-Butanol, 2,2,3,3,4,4,4-heptafluoro-
375-03-1	Propane, 1,1,1,2,2,3,3-heptafluoro-3-methoxy-
375-16-6	Butanoyl chloride, 2,2,3,3,4,4,4-heptafluoro-
375-22-4	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-
375-62-2	Pentanoyl fluoride, 2,2,3,3,4,4,5,5,5-nonafluoro-
375-72-4	1-Butanesulfonyl fluoride, 1,1,2,2,3,3,4,4,4-nonafluoro-
375-73-5	1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-
375-84-8	Heptanoyl fluoride, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-
375-85-9	Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-
375-88-2	Heptane, 1-bromo-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
375-95-1	Nonanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluoro-
376-06-7	Tetradecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14- heptacosafuoro-
376-14-7	2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctyl)sulfonyl]amino]ethyl ester
376-27-2	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, methyl ester
376-73-8	Pentanedioic acid, 2,2,3,3,4,4-hexafluoro-
376-90-9	1,5-Pentanediol, 2,2,3,3,4,4-hexafluoro-
377-38-8	Butanedioic acid, 2,2,3,3-tetrafluoro-
378-76-7	Propanoic acid, 2,2,3,3,3-pentafluoro-, potassium salt (1:1)
382-28-5	Morpholine, 2,2,3,3,5,5,6,6-octafluoro-4-(trifluoromethyl)-
383-07-3	2-Propenoic acid, 2-[butyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctyl)sulfonyl]amino]ethyl ester
421-73-8	Propane, 2-chloro-1,1,1,2-tetrafluoro-
422-05-9	1-Propanol, 2,2,3,3,3-pentafluoro-
422-56-0	Propane, 3,3-dichloro-1,1,1,2,2-pentafluoro-
422-61-7	Propanoyl fluoride, 2,2,3,3,3-pentafluoro-
422-63-9	1,1-Propanediol, 2,2,3,3,3-pentafluoro-
422-64-0	Propanoic acid, 2,2,3,3,3-pentafluoro-
423-39-2	Butane, 1,1,1,2,2,3,3,4,4-nonafluoro-4-iodo-
423-62-1	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10-heneicosafuoro-10-iodo-
423-82-5	2-Propenoic acid, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-

	heptadecafluorooctyl)sulfonyl]amino]ethyl ester
425-38-7	Propanoyl fluoride, 2,2,3,3-tetrafluoro-3-(trifluoromethoxy)-
428-59-1	Oxirane, 2,2,3-trifluoro-3-(trifluoromethyl)-
507-55-1	Propane, 1,3-dichloro-1,1,2,2,3-pentafluoro-
507-63-1	Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptadecafluoro-8-iodo-
559-40-0	Cyclopentene, 1,2,3,3,4,4,5,5-octafluoro-
647-42-7	1-Octanol, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-
678-26-2	Pentane, 1,1,1,2,2,3,3,4,4,5,5,5-dodecafluoro-
678-39-7	1-Decanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
697-18-7	1,2-Oxathietane, 3,3,4,4-tetrafluoro-, 2,2-dioxide
699-30-9	2,5-Furandione, 3,3,4,4-tetrafluorodihydro-
754-34-7	Propane, 1,1,1,2,2,3,3-heptafluoro-3-iodo-
755-73-7	Propanoic acid, 2,2,3,3-tetrafluoro-3-methoxy-, methyl ester
756-12-7	2-Butanone, 1,1,1,3,4,4,4-heptafluoro-3-(trifluoromethyl)-
756-13-8	3-Pentanone, 1,1,1,2,2,4,5,5,5-nonafluoro-4-(trifluoromethyl)-
773-14-8	Furan, 2,2,3,3,4,4,5,5-octafluorotetrahydro-
813-44-5	3-Pentanone, 1,1,1,2,4,5,5,5-octafluoro-2,4-bis(trifluoromethyl)-
813-45-6	3-Hexanone, 1,1,1,2,4,4,5,5,6,6,6-undecafluoro-2-(trifluoromethyl)-
865-86-1	1-Dodecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-
1547-26-8	1-Pentene, 2,3,3,4,4,5,5-heptafluoro-
1623-05-8	Propane, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-
1652-63-7	1-Propanaminium, 3-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, iodide (1:1)
1682-78-6	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-(1,1,2,2,2-pentafluoroethoxy)-
1691-99-2	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
1763-23-1	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-
1892-03-1	Cyclopentene, 1,3,3,4,4,5,5-heptafluoro-
1996-88-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester
2043-47-2	1-Hexanol, 3,3,4,4,5,5,6,6,6-nonafluoro-
2043-53-0	Decane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-10-iodo-
2043-54-1	Dodecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heneicosafuoro-12-iodo-
2043-55-2	Hexane, 1,1,1,2,2,3,3,4,4-nonafluoro-6-iodo-
2043-57-4	Octane, 1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-8-iodo-
2062-98-8	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-
2144-53-8	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl ester
2144-54-9	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester
2218-54-4	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-, sodium salt (1:1)
2263-09-4	1-Octanesulfonamide, N-butyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-
2641-34-1	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]-

2706-90-3	Pentanoic acid, 2,2,3,3,4,4,5,5,5-nonafluoro-
2795-39-3	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-, potassium salt (1:1)
2923-93-5	Hexanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]-
2991-51-7	Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluorooctyl)sulfonyl]-, potassium salt (1:1)
2994-71-0	Cyclobutane, 1,1,2,2,3,4-hexafluoro-3,4-bis(trifluoromethyl)-
3107-18-4	Cyclohexanesulfonic acid, 1,2,2,3,3,4,4,5,5,6,6-undecafluoro-, potassium salt (1:1)
3330-14-1	Propane, 1-[1-[difluoro(1,2,2,2-tetrafluoroethoxy)methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2,3,3,3-heptafluoro-
3794-64-7	Butanoic acid, 2,2,3,3,4,4,4-heptafluoro-, silver(1+) salt (1:1)
3825-26-1	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, ammonium salt (1:1)
3871-99-6	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, potassium salt (1:1)
3872-25-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, potassium salt (1:1)
3934-23-4	2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl ester
4089-58-1	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-[1,1,2,2-tetrafluoro-2-(fluorosulfonyl)ethoxy]propoxy]-
4151-50-2	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-
4980-53-4	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafluorohexadecyl ester
6014-75-1	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafluorotetradecyl ester
6130-43-4	Heptanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoro-, ammonium salt (1:1)
6588-63-2	Cyclohexanecarbonyl fluoride, 1,2,2,3,3,4,4,5,5,6,6-undecafluoro-
10493-43-3	Ethene, 1,1,2-trifluoro-2-(1,1,2,2,2-pentafluoroethoxy)-
13252-13-6	Propanoic acid, 2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-
13429-24-8	1-Propene, 1,1,2,3,3,3-hexafluoro-, dimer
13695-31-3	2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,4-heptafluorobutyl ester
15290-77-4	Cyclopentane, 1,1,2,2,3,3,4-heptafluoro-
16090-14-5	Ethanesulfonyl fluoride, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-
16517-11-6	Octadecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,18-pentatriacontafluoro-
17202-41-4	1-Nonanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-nonadecafluoro-, ammonium salt (1:1)

17527-29-6	2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl ester
17631-68-4	Europium, tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-.kappa.O3,.kappa.O5)-
17741-60-5	2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester
17978-77-7	Praseodymium, tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-.kappa.O3,.kappa.O5)-
18599-20-7	Butane, 1,4-dibromo-1,1,2,2-tetrafluoro-
18599-22-9	1-Butene, 4-bromo-3,3,4,4-tetrafluoro-
19430-93-4	1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-
21615-47-4	Hexanoic acid, 2,2,3,3,4,4,5,5,6,6,6-undecafluoro-, ammonium salt (1:1)
21652-58-4	1-Decene, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
24448-09-7	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-(2-hydroxyethyl)-N-methyl-
25268-77-3	2-Propenoic acid, 2-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester
25291-17-2	1-Octene, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-
25398-32-7	Ethene, 1,1,2,2-tetrafluoro-, telomer with 1,1,1,2,2-pentafluoro-2-iodoethane
26650-09-9	Thiocyanic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl ester
26654-97-7	Ethanesulfonyl fluoride, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene
26655-00-5	Propane, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene
26738-51-2	3,6,9,12-Tetraoxapentadecane, 1,1,1,2,4,4,5,7,7,8,10,10,11,13,13,14,14,15,15,15-eicosafluoro-5,8,11-tris(trifluoromethyl)-
27619-88-1	1-Hexanesulfonyl chloride, 3,3,4,4,5,5,6,6,6-nonafluoro-
27619-89-2	1-Octanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-
27619-90-5	1-Decanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-
27619-91-6	1-Dodecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuoro-
27619-97-2	1-Octanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-
27905-45-9	2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl ester
29081-56-9	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, ammonium salt (1:1)
29117-08-6	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
29420-49-3	1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, potassium salt (1:1)
29457-72-5	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, lithium salt (1:1)
29809-34-5	Eicosane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16

	,17,17,18,18,19,19,20,20-hentetracontafluoro-20-iodo-
29809-35-6	Octadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16, 17,17,18,18-heptatriacontafluoro-18-iodo-
30046-31-2	Tetradecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12- pentacosafuoro-14-iodo-
31175-20-9	Ethanesulfonic acid, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]- 1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2- tetrafluoroethene
31506-32-8	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N- methyl-
34362-49-7	2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16- nonacosafuorohexadecyl ester
34395-24-9	2-Propenoic acid, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14- pentacosafuorotetradecyl ester
34454-97-2	1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N- methyl-
34455-29-3	1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3- [[[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulfonyl]amino]-, inner salt
34788-82-4	Europium, tris[3-[2,2,3,3,4,4,4-heptafluoro-1-(oxo-.kappa.O)butyl]-1,7,7- trimethylbicyclo[2.2.1]heptan-2-onato-.kappa.O]-
35397-13-8	Propane, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1-chloro-1,2,2-trifluoroethene and ethene
37338-48-0	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2- [ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
37486-69-4	3,6,9,12,15-Pentaoxaooctadecane, 1,1,1,2,4,4,5,7,7,8,10,10,11,13,13,14,16,16,17,17,18,18,18-tricosafuoro- 5,8,11,14-tetrakis(trifluoromethyl)-
38006-74-5	1-Propanaminium, 3-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8- heptadecafluorooctyl)sulfonyl]amino]-N,N,N-trimethyl-, chloride (1:1)
38565-52-5	Oxirane, 2-(2,2,3,3,4,4,5,5,6,6,7,7,7-tridecafluoroheptyl)-
39239-77-5	1-Tetradecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14- pentacosafuoro-
42532-60-5	Propanenitrile, 2,3,3,3-tetrafluoro-2-(trifluoromethyl)-
51851-37-7	Silane, triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-
52166-82-2	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,5,5,6,6,6- tridecafluorohexyl)sulfonyl]amino]-, chloride (1:1)
52591-27-2	2-Propenoic acid, 3,3,4,4,5,5,6,6,6-nonafluorohexyl ester
53518-00-6	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,4- nonafluorobutyl)sulfonyl]amino]-, chloride (1:1)
54950-05-9	Butanedioic acid, 2-sulfo-, 1,4-bis(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ester, sodium salt (1:1)
55716-11-5	Morpholine, 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,2,2,2-pentafluoroethyl)-
55910-10-6	Glycine, N-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]-

	N-propyl-, potassium salt (1:1)
56372-23-7	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
56467-05-1	Poly(oxy-1,2-ethanediyl), .alpha.-(tridecafluorohexyl)-.omega.-hydroxy-
56773-42-3	Ethanaminium, N,N,N-triethyl-, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-1-octanesulfonate (1:1)
57570-64-6	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1-difluoroethene, 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
58194-00-6	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy]-
59071-10-2	2-Propenoic acid, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
60164-51-4	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha.-(1,1,2,2,2-pentafluoroethyl)-.omega.-[tetrafluoro(trifluoromethyl)ethoxy]-
60270-55-5	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, potassium salt (1:1)
60699-51-6	1-Hexadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-nonacosafuoro-
61660-12-6	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[3-(trimethoxysilyl)propyl]-
61798-68-3	Pyridinium, 1-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-, 4-methylbenzenesulfonate (1:1)
62037-80-3	Propanoic acid, 2,3,3,3-tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-, ammonium salt (1:1)
63654-41-1	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propane and 1,1,2,2-tetrafluoroethene
63863-43-4	Propanoic acid, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, methyl ester
63863-44-5	Propanoic acid, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, methyl ester, polymer with 1,1,2,2-tetrafluoroethene
65059-79-2	1-Butene, 4-bromo-3,3,4,4-tetrafluoro-, polymer with 1,1-difluoroethene, 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
65104-45-2	2-Propenoic acid, 2-methyl-, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-methyl-2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl 2-methyl-2-propenoate
65104-65-6	1-Eicosanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18,18,19,19,20,20,20-heptatriacontafluoro-
65104-67-8	1-Octadecanol, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,17,17,18

	,18,18-tritriacontafluoro-
65510-55-6	Hexadecane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14- nonacosafuoro-16-iodo-
65530-59-8	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-hydroxyethyl)-, 2- hydroxy-1,2,3-propanetricarboxylate (3:1)
65530-61-2	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-
65530-62-3	Poly(difluoromethylene), .alpha.,.alpha.'-[phosphinicobis(oxy-2,1- ethanediyl)]bis[.omega.-fluoro-
65530-63-4	Ethanol, 2,2'-iminobis-, compd. with .alpha.-fluoro-.omega.-[2- (phosphonooxy)ethyl]poly(difluoromethylene) (2:1)
65530-64-5	Ethanol, 2,2'-iminobis-, compd. with .alpha.,.alpha.'-[phosphinicobis(oxy-2,1- ethanediyl)]bis[.omega.-fluoropoly(difluoromethylene)] (1:1)
65530-65-6	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-[(1- oxooctadecyl)oxy]ethyl]-
65530-66-7	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-[(2-methyl-1-oxo-2- propen-1-yl)oxy]ethyl]-
65530-69-0	Poly(difluoromethylene), .alpha.-[2-[(2-carboxyethyl)thio]ethyl]-.omega.- fluoro-, lithium salt (1:1)
65530-70-3	Poly(difluoromethylene), .alpha.,.alpha.'-[phosphinicobis(oxy-2,1- ethanediyl)]bis[.omega.-fluoro-, ammonium salt (1:1)
65530-71-4	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-, ammonium salt (1:1)
65530-72-5	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-, ammonium salt (1:2)
65530-74-7	Ethanol, 2,2'-iminobis-, compd. with .alpha.-fluoro-.omega.-[2- (phosphonooxy)ethyl]poly(difluoromethylene) (1:1)
65530-82-7	Poly(difluoromethylene), .alpha.,.omega.-difluoro-
65530-83-8	Poly(difluoromethylene), .alpha.-[2-[(2-carboxyethyl)thio]ethyl]-.omega.- fluoro-
65530-85-0	Poly(difluoromethylene), .alpha.-(cyclohexylmethyl)-.omega.-hydro-
65545-80-4	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with .alpha.- fluoro-.omega.-(2-hydroxyethyl)poly(difluoromethylene) (1:1)
65605-56-3	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-hydroxyethyl)-, dihydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-57-4	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-hydroxyethyl)-, hydrogen 2-hydroxy-1,2,3-propanetricarboxylate
65605-58-5	2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with .alpha.-fluoro- .omega.-[2-[(2-methyl-1-oxo-2-propen-1- yl)oxy]ethyl]poly(difluoromethylene)
65605-59-6	2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with .alpha.-fluoro- .omega.-[2-[(2-methyl-1-oxo-2-propen-1- yl)oxy]ethyl]poly(difluoromethylene) and N-(hydroxymethyl)-2-propenamide
65605-73-4	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-[(1-oxo-2-propen-1- yl)oxy]ethyl]-, homopolymer
65636-35-3	Ethanaminium, N,N-diethyl-N-methyl-2-[(2-methyl-1-oxo-2-propen-1-

	yl)oxy]-, methyl sulfate (1:1), polymer with 2-ethylhexyl 2-methyl-2-propenoate, .alpha.-fluoro-.omega.-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
67584-42-3	Cyclohexanesulfonic acid, decafluoro(pentafluoroethyl)-, potassium salt (1:1)
67584-51-4	Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]-, potassium salt (1:1)
67584-52-5	Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]-, potassium salt (1:1)
67584-53-6	Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]-, potassium salt (1:1)
67584-55-8	2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl ester
67584-56-9	2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl ester
67584-57-0	2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl ester
67584-58-1	1-Propanaminium, N,N,N-trimethyl-3-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]-, iodide (1:1)
67584-59-2	2-Propenoic acid, 2-methyl-, 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl ester
67584-62-7	Glycine, N-ethyl-N-[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]-, potassium salt (1:1)
67905-19-5	Hexadecanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,15,15,16,16,16-hentriacontafluoro-
67906-42-7	1-Decanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heneicosafluoro-, ammonium salt (1:1)
67939-95-1	1-Propanaminium, N,N,N-trimethyl-3-[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]-, iodide (1:1)
67969-69-1	1-Octanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-N-[2-(phosphonooxy)ethyl]-, ammonium salt (1:2)
68084-62-8	2-Propenoic acid, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl ester
68140-18-1	Thiols, C4-10, .gamma.-.omega.-perfluoro
68140-20-5	Thiols, C6-12, .gamma.-.omega.-perfluoro
68140-21-6	Thiols, C10-20, .gamma.-.omega.-perfluoro
68141-02-6	Octanoic acid, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-, chromium(3+) salt (3:1)
68156-01-4	Cyclohexanesulfonic acid, nonafluorobis(trifluoromethyl)-, potassium salt (1:1)
68156-07-0	Cyclohexanesulfonic acid, decafluoro(trifluoromethyl)-, potassium salt (1:1)
68182-34-3	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1-difluoroethene, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propane and 1,1,2,2-tetrafluoroethene
68187-25-7	Butanoic acid, 4-[[3-(dimethylamino)propyl]amino]-4-oxo-, 2(or 3)-

	[(.gamma.-.omega.-perfluoro-C6-20-alkyl)thio] derivs.
68187-47-3	1-Propanesulfonic acid, 2-methyl-, 2-[[1-oxo-3-[(.gamma.-.omega.-perfluoro-C4-16-alkyl)thio]propyl]amino] derivs., sodium salts
68188-12-5	Alkyl iodides, C4-20, .gamma.-.omega.-perfluoro
68227-96-3	2-Propenoic acid, butyl ester, telomer with 2-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-hydroxypoly(oxy-1,4-butanediyl), .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,4-butanediyl), 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and 1-octanethiol
68239-43-0	2-Propenoic acid, 2-methyl-, 2-ethylhexyl ester, polymer with .alpha.-fluoro-.omega.-[2-[(2-methyl-1-oxo-2-propen-1-yl)oxy]ethyl]poly(difluoromethylene), 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide
68258-85-5	1-Hexene, 3,3,4,4,5,5,6,6,6-nonafluoro-, polymer with ethene and 1,1,2,2-tetrafluoroethene
68259-07-4	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, ammonium salt (1:1)
68259-08-5	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, ammonium salt (1:1)
68259-09-6	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, ammonium salt (1:1)
68259-10-9	1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, ammonium salt (1:1)
68259-11-0	Pentanoic acid, 2,2,3,3,4,4,5,5,5-nonafluoro-, ammonium salt (1:1)
68259-38-1	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68259-39-2	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68298-12-4	1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-methyl-
68298-62-4	2-Propenoic acid, 2-[butyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl ester, telomer with 2-[butyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-methyloxirane polymer with oxirane di-2-propenoate, 2-methyloxirane polymer with oxirane mono-2-propenoate and 1-octanethiol
68298-79-3	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68298-80-6	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-

68298-81-7	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68310-17-8	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68310-18-9	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl]-.omega.-hydroxy-
68391-08-2	Alcohols, C8-14, .gamma.-.omega.-perfluoro
68412-68-0	Phosphonic acid, perfluoro-C6-12-alkyl derivs.
68412-69-1	Phosphinic acid, bis(perfluoro-C6-12-alkyl) derivs.
68515-62-8	1,4-Benzenedicarboxylic acid, dimethyl ester, reaction products with bis(2-hydroxyethyl) terephthalate, ethylene glycol, .alpha.-fluoro-.omega.-(2-hydroxyethyl)poly(difluoromethylene), hexakis(methoxymethyl)melamine and polyethylene glycol
68555-74-8	1-Pentanesulfonamide, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-75-9	1-Hexanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-76-0	1-Heptanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-N-(2-hydroxyethyl)-N-methyl-
68555-77-1	1-Butanesulfonamide, N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,4-nonafluoro-
68555-81-7	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]-, chloride (1:1)
68555-91-9	2-Propenoic acid, 2-methyl-, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl ester, polymer with 2-[ethyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate, 2-[ethyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl 2-methyl-2-propenoate and octadecyl 2-methyl-2-propenoate
68758-57-6	1-Tetradecanesulfonyl chloride, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuoro-
68867-60-7	2-Propenoic acid, 2-[[[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, polymer with 2-[methyl[(1,1,2,2,3,3,4,4,4-nonafluorobutyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]ethyl 2-propenoate, 2-[methyl[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]ethyl 2-propenoate and .alpha.-(1-oxo-2-propen-1-yl)-.omega.-methoxypoly(oxy-1,2-ethanediyl)
68891-05-4	Ethene, tetrafluoro-, homopolymer, .alpha.-fluoro-.omega.-(2-hydroxyethyl)-, citrate, reaction products with 1,6-diisocyanatohexane
68957-55-1	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,5,5,5-

	undecafluoropentyl)sulfonyl]amino]-, chloride (1:1)
68957-57-3	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,5,5,5-undecafluoropentyl)sulfonyl]amino]-, iodide (1:1)
68957-58-4	1-Propanaminium, N,N,N-trimethyl-3-[[[(1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluorohexyl)sulfonyl]amino]-, iodide (1:1)
68957-62-0	1-Heptanesulfonamide, N-ethyl-1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-
68958-60-1	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoroheptyl)sulfonyl]amino]ethyl]-.omega.-methoxy-
68958-61-2	Poly(oxy-1,2-ethanediyl), .alpha.-[2-[ethyl[(1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluorooctyl)sulfonyl]amino]ethyl]-.omega.-methoxy-
69087-47-4	Propanoic acid, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene
69116-73-0	Propanoic acid, 3-[1-[difluoro[1,2,2,2-tetrafluoro-1-(fluorocarbonyl)ethoxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, methyl ester
69804-19-9	Propanenitrile, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-
69991-61-3	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd.
69991-62-4	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced
69991-67-9	1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polymd.
70225-14-8	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-15-9	1-Heptanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,7-pentadecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-16-0	1-Hexanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,6-tridecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-17-1	1-Pentanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,5-undecafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70225-18-2	1-Butanesulfonic acid, 1,1,2,2,3,3,4,4,4-nonafluoro-, compd. with 2,2'-iminobis[ethanol] (1:1)
70969-47-0	Thiols, C8-20, .gamma.-.omega.-perfluoro, telomers with acrylamide
70983-59-4	Poly(oxy-1,2-ethanediyl), .alpha.-methyl-.omega.-hydroxy-, 2-hydroxy-3-[(.gamma.-.omega.-perfluoro-C6-20-alkyl)thio]propyl ethers
70983-60-7	1-Propanaminium, 2-hydroxy-N,N,N-trimethyl-, 3-[(.gamma.-.omega.-perfluoro-C6-20-alkyl)thio] derivs., chlorides
71608-60-1	Pentanoic acid, 4,4-bis[(.gamma.-.omega.-perfluoro-C8-20-alkyl)thio] derivs.
71832-66-1	Propanenitrile, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
72623-77-9	Fatty acids, C6-18, perfluoro, ammonium salts
72968-38-8	Fatty acids, C7-13, perfluoro, ammonium salts
74398-72-4	1-Butene, 4-bromo-3,3,4,4-tetrafluoro-, polymer with 1,1-difluoroethene, 1,1,2,3,3,3-hexafluoro-1-propene and 1,1,2,2-tetrafluoroethene
74499-44-8	Phosphoric acid, .gamma.-.omega.-perfluoro-C8-16-alkyl esters, compds. with diethanolamine

74499-68-6	Propane, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1-difluoroethene and 1,1,2,2-tetrafluoroethene
74499-71-1	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with ethene, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propane and 1,1,2,2-tetrafluoroethene
78560-44-8	Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)-
79070-11-4	Poly(difluoromethylene), .alpha.-chloro-.omega.-(2,2-dichloro-1,1,2-trifluoroethyl)-
80010-37-3	Poly(difluoromethylene), .alpha.-fluoro-.omega.-(2-sulfoethyl)-
83048-65-1	Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)trimethoxy-
86508-42-1	Perfluoro compounds, C5-18
88645-29-8	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced, Me esters, reduced
95144-12-0	Poly(difluoromethylene), .alpha.-fluoro-.omega.-[2-(phosphonooxy)ethyl]-, ammonium salt (1:?)
97553-95-2	Thiocyanic acid, .gamma.-.omega.-perfluoro-C4-20-alkyl esters
97659-47-7	Alkenes, C8-14 .alpha.-, .delta.-.omega.-perfluoro
101316-90-9	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced, Me esters, reduced, acrylates
118400-71-8	Disulfides, bis(.gamma.-.omega.-perfluoro-C6-20-alkyl)
123171-68-6	Poly(difluoromethylene), .alpha.-[2-(acetyloxy)-3-[(carboxymethyl)dimethylammonio]propyl]-.omega.-fluoro-, inner salt
125061-94-1	Naphthalene, [difluoro(1,2,2,3,3,4,4,5,5,6,6-undecafluorocyclohexyl)methyl]heptadecafluorodecahydro-
125476-71-3	Silicic acid (H4SiO4), sodium salt (1:2), reaction products with chlorotrimethylsilane and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluoro-1-decanol
126066-30-6	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha.-[1,2,2,2-tetrafluoro-1-(hydroxymethyl)ethyl]-.omega.-[tetrafluoro(trifluoromethyl)ethoxy]-
132182-92-4	Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-(trifluoromethyl)-
132843-44-8	Ethanesulfonamide, 1,1,2,2,2-pentafluoro-N-[(1,1,2,2,2-pentafluoroethyl)sulfonyl]-, lithium salt (1:1)
134035-61-3	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha.-[1,2,2,2-tetrafluoro-1-(methoxycarbonyl)ethyl]-.omega.-[tetrafluoro(trifluoromethyl)ethoxy]-
135228-60-3	Hexane, 1,6-diisocyanato-, homopolymer, .gamma.-.omega.-perfluoro-C6-20-alc.-blocked
138495-42-8	Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro-
142636-88-2	2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,12-heneicosafuorododecyl 2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl 2-propenoate and 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,12,12,13,13,14,14,14-pentacosafuorotetradecyl 2-propenoate
143372-54-7	Siloxanes and Silicones, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl)oxy Me, hydroxy Me, Me octyl, ethers with polyethylene glycol mono-Me ether

147545-41-3	1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-N-methyl-, phosphate (ester)
148240-85-1	1,3-Propanediol, 2,2-bis[(.gamma.-.omega.-perfluoro-C4-10-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-87-3	1,3-Propanediol, 2,2-bis[(.gamma.-.omega.-perfluoro-C6-12-alkyl)thio]methyl] derivs., phosphates, ammonium salts
148240-89-5	1,3-Propanediol, 2,2-bis[(.gamma.-.omega.-perfluoro-C10-20-alkyl)thio]methyl] derivs., phosphates, ammonium salts
149935-01-3	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1-difluoroethene, ethene, 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
150135-57-2	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with Bu acrylate, .gamma.-.omega.-perfluoro-C8-14-alkyl acrylate and polyethylene glycol monomethacrylate, 2,2'-(1,2-diazenediyl)bis[2,4-dimethylpentanenitrile]-initiated
156559-18-1	2-Oxiranemethanol, polymers with reduced Me esters of reduced polymd. oxidized tetrafluoroethylene
161075-12-3	Ethene, tetrafluoro-, oxidized, polymd., reduced, Me esters
162492-15-1	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced, Me esters, reduced, ethoxylated
163702-05-4	Butane, 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluoro-
163702-06-5	Propane, 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoro-
163702-07-6	Butane, 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-
163702-08-7	Propane, 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoro-
165178-32-5	Propane, 1,1,1,2,2,3,3-heptafluoro-3-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
177484-43-4	Propanenitrile, 2,3,3,3-tetrafluoro-2-[1,1,2,2,3,3-hexafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propoxy]-, polymer with 1,1,2,2-tetrafluoroethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
178094-69-4	1-Octanesulfonamide, N-[3-(dimethyloxidoamino)propyl]-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-, potassium salt (1:1)
178535-23-4	Fatty acids, linseed-oil, .gamma.-.omega.-perfluoro-C8-14-alkyl esters
180582-79-0	Sulfonic acids, C6-12-alkane, .gamma.-.omega.-perfluoro, ammonium salts
182176-52-9	Ethaneperoxoic acid, reaction products with 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl thiocyanate and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl thiocyanate
185701-88-6	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]-, polymer with 2,2,3-trifluoro-3-(trifluoromethyl)oxirane, reaction products with 3-(ethenyldimethylsilyl)-N-methylbenzenamine
196316-34-4	2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymers with .gamma.-.omega.-perfluoro-C10-16-alkyl acrylate and vinyl acetate, acetates
200013-65-6	Diphosphoric acid, polymers with ethoxylated reduced Me esters of reduced polymd. oxidized tetrafluoroethylene
200513-42-4	2-Propenoic acid, 2-methyl-, polymer with butyl 2-methyl-2-propenoate, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl 2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate

212335-64-3	2-Propenoic acid, reaction products with N-[3-(dimethylamino)propyl]-1,1,2,2,3,3,4,4,4-nonafluoro-1-butanefulfonamide
220075-01-4	Propanedioic acid, 2-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, 1,3-dimethyl ester
220182-27-4	1-Propene, 1,1,2,3,3,3-hexafluoro-, telomer with chlorotrifluoroethene, oxidized, reduced, Et ester, hydrolyzed
220459-70-1	Glycine, N,N-bis[2-hydroxy-3-(2-propen-1-yloxy)propyl]-, sodium salt (1:1), reaction products with ammonium hydroxide and 1,1,1,2,2-pentafluoro-2-iodoethane-tetrafluoroethylene telomer
220689-12-3	Phosphonium, tetrabutyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanefulfonate (1:1)
226409-30-9	Propanedioic acid, 2-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-, 1,3-bis[4-(ethenyloxy)butyl] ester
238420-68-3	Propanedioic acid, mono(.gamma.-.omega.-perfluoro-C8-12-alkyl) derivs., di-me esters
238420-80-9	Propanedioic acid, mono(.gamma.-.omega.-perfluoro-C8-12-alkyl) derivs., bis[4-(ethenyloxy)butyl] esters
274917-93-0	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C3 fraction
274917-94-1	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C4 fraction
274917-95-2	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C5 fraction
274917-96-3	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C6 fraction
274917-97-4	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C7 fraction
274918-01-3	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C8 fraction
274918-02-4	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C9 fraction
274918-03-5	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C10 fraction
274918-09-1	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C11 fraction
274918-10-4	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C12 fraction
274918-12-6	Ethene, tetrafluoro-, oxidized, polymd., reduced, decarboxylated, C13 fraction
297730-93-9	Hexane, 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl)-
328389-90-8	1,2-Propanediol, 3-(diethylamino)-, polymers with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, propylene glycol and reduced Me esters of reduced polymd. oxidized tetrafluoroethylene, 2-ethyl-1-hexanol-blocked, acetates (salts)
332350-90-0	Phosphonium, tributyl(2-methoxypropyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-N-methyl-1-butanefulfonamide (1:1)
332350-93-3	Phosphonium, triphenyl(phenylmethyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-N-methyl-1-butanefulfonamide (1:1)
421595-49-5	2-Propenoic acid, 2-hydroxyethyl ester, adduct with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (1:1), reaction products with ethoxylated reduced Me esters of reduced polymd. oxidized tetrafluoroethylene
449177-94-0	Oxetane, 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]-
452080-67-0	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1), bis(hydrogen sulfate), diammonium salt
475678-78-5	Oxetane, 3-methyl-3-[[3,3,4,4,5,5,6,6,6-nonafluorohexyl)oxy]methyl]-

484024-67-1	1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4-nonafluoro-N-(2-hydroxyethyl)-, ammonium salt (1:1)
502164-17-2	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced, Et esters
753501-40-5	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1)
753501-43-8	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane
864910-70-3	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 2-methyloxirane, 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, oxirane and tetrahydrofuran
874290-13-8	Ethene, 1-[difluoro(trifluoromethoxy)methoxy]-1,2,2-trifluoro-, polymer with 1,1-difluoroethene
878545-84-7	1-Propene, 1,1,2,3,3,3-hexafluoro-, polymer with 1,1,2,2-tetrafluoroethene, 1,1,2-trifluoro-2-(1,1,2,2,2-pentafluoroethoxy)ethene and 1,1,2-trifluoro-2-(trifluoromethoxy)ethene
957209-18-6	Furan, 2,3,3,4,4-pentafluorotetrahydro-5-methoxy-2,5-bis[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-
1029089-63-1	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1), polymer with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane
1033385-42-0	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha.-[1,2,2,2-tetrafluoro-1-[(2-hydroxyethyl)amino]carbonyl]ethyl]-.omega.-[tetrafluoro(trifluoromethyl)ethoxy]-, ether with .alpha.-hydro-.omega.-hydroxypoly(oxy-1,2-ethanediyl) (2:1)
1078142-10-5	1,3-Propanediol, 2,2-bis[[(.gamma.-.omega.-perfluoro-C6-12-alkyl)thio]methyl] derivs., polymers with 2,2-bis[[(.gamma.-.omega.-perfluoro-C10-20-alkyl)thio]methyl]-1,3-propanediol, 1,6-diisocyanato-2,2,4(or 2,4,4)-trimethylhexane, 2-heptyl-3,4-bis(9-isocyanatononyl)-1-pentylcyclohexane and 2,2'-(methyylimino)bis[ethanol]
1078712-88-5	Thiols, C4-20, .gamma.-.omega.-perfluoro, telomers with acrylamide and acrylic acid, sodium salts
1078715-61-3	1-Propanaminium, 3-amino-N-(carboxymethyl)-N,N-dimethyl-, N-[2-[(.gamma.-.omega.-perfluoro-C4-20-alkyl)thio]acetyl] derivs., inner salts
1092822-31-5	2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with 2-hydroxyethyl 2-propenoate, .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-methoxypoly(oxy-1,2-ethanediyl) and 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane polymer with tetrahydrofuran mono[[(1-oxo-2-propen-1-yl)oxy]ethyl] ether
1214752-87-0	Borate(1-), tetrahydro-, sodium (1:1), reaction products with reduced polymd. oxidized tetrafluoroethylene, hydrolyzed, diallyl ethers, polymers with 2,4,6,8-tetramethylcyclotetrasiloxane, Si-(8,13-dioxo-4,7,12-trioxa-9-azapentadec-14-en-1-yl) derivs.

1215851-50-5	Sulfonium, [1,1'-biphenyl]-4-yl[4-([1,1'-biphenyl]-4-ylthio)phenyl]phenyl-, (OC-6-21)-trifluorotris(1,1,2,2,2-pentafluoroethyl)phosphate(1-) (1:1)
1224429-82-6	Phosphoric acid, mixed esters with polyethylene glycol and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octanol, ammonium salts
1269217-82-4	Thieno[3,4-b]thiophene, homopolymer, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoroethanesulfonic acid-tetrafluoroethylene polymer-doped
1279108-20-1	Hexane, 1,6-diisocyanato-, homopolymer, .alpha.-[1-[[[3-[[3-(dimethylamino)propyl]amino]propyl]amino]carbonyl]-1,2,2,2-tetrafluoroethyl]-.omega.-(1,1,2,2,3,3,3-heptafluoropropoxy)poly[oxy[trifluoro(trifluoromethyl)-1,2-ethanediyl]]-blocked
1378928-76-7	Ethanesulfonyl fluoride, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene, hydrolyzed, potassium salts
1378930-04-1	Ethanesulfonyl fluoride, 2-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-1,1,2,2-tetrafluoro-, polymer with 1,1,2,2-tetrafluoroethene, hydrolyzed
1378930-30-3	Propanoic acid, 3-[1-[difluoro[(1,2,2-trifluoroethenyl)oxy]methyl]-1,2,2,2-tetrafluoroethoxy]-2,2,3,3-tetrafluoro-, methyl ester, polymer with 1,1,2,2-tetrafluoroethene, hydrolyzed, potassium salts
1564254-27-8	Ethene, 1,1,2,2-tetrafluoro-, oxidized, polymd., reduced, Me esters, reduced, N-(3-isocyanatomethylphenyl)carbamates
1627515-87-0	Hexanedioic acid, polymers with 1,3-butanediol, 1,4-butanediol, di-Et malonate, 1,6-diisocyanatohexane, ethoxylated reduced Me esters of reduced polymd. oxidized tetrafluoroethylene, 1,6-hexanediol, 1,1'-methylenebis[isocyanatobenzene], propylene glycol and tripropylene glycol
1687740-67-5	Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-[(1,2,2-trifluoroethenyl)oxy]-, polymer with 1,1,2,2-tetrafluoroethene, hydrolyzed, lithium salts
1708962-18-8	Methanol, reaction products with 1,1,1,2,2,3,4,5,5,6,6,7,7,7-tetradecafluoro-3-heptene
1708962-19-9	Methanol, reaction products with 1,1,1,2,3,4,4,5,5,6,6,7,7,7-tetradecafluoro-2-heptene
1807944-82-6	1-Octanesulfonic acid, 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-, barium salt (2:1)

(b) Examples of PFAS by TSCA Accession Number.

TSCA Accession Number	Chemical Name
44305	Perfluoroalkyl ethanol and methyl alcohol adducts of toluene diisocyanate
46641	Siloxanes and silicones, dimethyl, methylfluoroalkyl (PROVISIONAL)
60710	Modified ethylene-tetrafluoro ethylene copolymer (PROVISIONAL)
62625	Disubstituted tetrafluoroalkane
67993	Substituted tetrafluoroalkene

68101	Disubstituted tetrafluoroalkane
70907	Perfluoroalkyl acrylate copolymer latex (PROVISIONAL)
71217	Polyfluoroalkyl betaine (PROVISIONAL)
71273	Fluorinated alkyl silane (PROVISIONAL)
73940	2-Oxepanone, polymer with n-decanol and heptadecafluorodecanol, reaction product with benzene, diisocyanatomethyl (PROVISIONAL)
74465	Fluoroalkylsiloxane hydrolyzate (PROVISIONAL)
82623	Perfluoroalkyl polyether (PROVISIONAL)
87639	Fluoro elastomer (PROVISIONAL)
89419	Modified fluoroalkyl urethane (PROVISIONAL)
91748	Fluoro alkyl siloxane polymer (PROVISIONAL)
99333	Siloxanes and silicones, dimethyl, methylfluoroalkyl (PROVISIONAL)
100700	2-Propenoic acid, 2-methyl-, methyl ester, polymer with poly(difluoromethylene), .omega.-(2-((1-oxo-2-propenyl)oxy)ethyl)- (PROVISIONAL)
102659	Perfluoroelastomer (PROVISIONAL)
103129	Perfluoroalkenyltrialkylammonium salt (PROVISIONAL)
104984	Fluorosiloxane polymer (PROVISIONAL)
105590	Salt of perfluoro fatty acids (PROVISIONAL)
107734	Fluorinated acrylic ester polymer (PROVISIONAL)
109649	Perfluoroelastomer (PROVISIONAL)
113758	Fluorocarbon polymer (PROVISIONAL)
114795	Copolymers of fluoroolefin and vinyl ethers (PROVISIONAL)
114831	Copolymers of fluoroolefin and vinyl ethers (PROVISIONAL)
115118	Fluorinated acrylic ester copolymer (PROVISIONAL)
115776	Reaction product of a fluorinated alcohol, epichlorohydrin, an alkyl glycol and an isocyanate (PROVISIONAL)
117727	Fluorinated substituted urethane (PROVISIONAL)
118219	Perfluoroalkylacrylate (PROVISIONAL)
118322	Perfluoroalkylsulfonamide salt (PROVISIONAL)
118708	Reaction product of a fluorinated alcohol, epichlorohydrin, a diol and an isocyanate (PROVISIONAL)
122453	Substituted perfluoroalkenyl ammonium salt (PROVISIONAL)
125601	Copolymers of fluoroolefin and vinyl ethers (PROVISIONAL)
127765	Quaternary ammonium perfluoroalkyl carboxylate (PROVISIONAL)
128677	Perfluoroalkyl ethylacrylate oligomer (PROVISIONAL)
129103	Modified perfluoropolyoxyalkane (PROVISIONAL)
131987	Fluorinated phosphate (PROVISIONAL)
132957	Polyfluoroacyl chloride (PROVISIONAL)
134748	Perfluoropolyamphiphile (PROVISIONAL)
135058	Perfluoroalkylethylacrylate copolymer (PROVISIONAL)
136415	Copolymer of fluoroolefin (PROVISIONAL)
137587	Perfluoroalkylethylacrylate copolymer (PROVISIONAL)
137667	Perfluoroalkylethylacrylate copolymer (PROVISIONAL)
137678	Fluoroelastomer (PROVISIONAL)

138648	Fluorinated acrylic copolymer (PROVISIONAL)
142008	Fluorinated polyalkyl alkoxy siloxanes (PROVISIONAL)
144582	Perfluoroalkylethyl ester (PROVISIONAL)
146282	Aromatic fluoroalkyl mixture complex
150755	Perfluorinated alcohol (PROVISIONAL)
152137	Aryl phosphonate ester of a perfluoropolyether (PROVISIONAL)
152411	Perfluoroalkylethylacrylate copolymer (PROVISIONAL)
153209	Perfluoroalkylacrylate copolymer (PROVISIONAL)
153345	Betaines, dimethyl (polyfluoro-hydro-alkyl) (PROVISIONAL)
155567	Fluorinated silane (PROVISIONAL)
158022	Perfluoroalkylacrylate copolymer (PROVISIONAL)
159707	Fluoroelastomer (PROVISIONAL)
160339	Modified fluorinated acrylic resin (PROVISIONAL)
160680	Polyfluoro alkylether (PROVISIONAL)
163214	Fluoroethylene-vinylether copolymer (PROVISIONAL)
164148	Perfluoroalkylacrylate copolymer (PROVISIONAL)
166973	Modified perfluoropolyether salt (PROVISIONAL)
167410	Copolymer of tetrafluoroethylene and perfluoroalkoxy ethene (PROVISIONAL)
168833	Perfluoroalkylethyl amine (PROVISIONAL)
169347	Perfluoroalkylethyl ester (PROVISIONAL)
169698	Hydrofluorocarbon ethers (PROVISIONAL)
171790	Perfluoroalkylethyl acrylate copolymer (PROVISIONAL)
172851	Perfluoroalkylphosphate ammonium salt (PROVISIONAL)
174993	Poly-.beta.-fluoroalkylethyl acrylate and alkyl acrylate (PROVISIONAL)
176740	Poly-.beta.-fluoroalkylethyl acrylate and polyoxyalkyl methacrylate (PROVISIONAL)
178008	Siloxane grafted fluoroelastomer
193578	Alkyl perfluorinated acryloyl ester (PROVISIONAL)
194662	Alkenoic acid, polymer with alkyl alkenoate, alkylalkylalkenoate, alkenoic acid and tridecafluoro alkylalkenoate, compds. with alkylaminoalcohol
196704	Fluorinated acrylic copolymer (PROVISIONAL)
199350	Fluoroalkyl acrylate copolymer
200818	Perfluoropolyether modified organosilane (PROVISIONAL)
204230	Polyfluoroalkyl phosphoric acid salt (PROVISIONAL)
205302	Hydrofluoroolefin polymer with 1,1-difluoroethene (PROVISIONAL)
205313	Polyfluoroacyl peroxide (PROVISIONAL)
217095	Alkylpolycarboxylic acid, derivative, tris(fluorinatedalkoxy)alkyl ester salt
218985	Fluorinated organopolysilazane
221637	Polyfluoroalkyl phosphoric acid salt (PROVISIONAL)
225004	Siloxanes and Silicones, alkyl, alkyl propoxy ethyl, methyl octyl, alkyl polyfluorooctyl
227884	Fluorinated acrylate, polymer with alkyloxirane homopolymer monether with alkanediol mono(2-methyl-2-propenoate), tert-Bu 2-ethylhexaneperoxoate-initiated
230194	Fluoropolymer (PROVISIONAL)

231255	Fluoroalkyl methacrylate copolymer
231642	Fluoroethylene vinyl copolymer (PROVISIONAL)
231937	Perfluoroalkylethyl methacrylate copolymer (PROVISIONAL)
231993	Polyfluorinated alkyl thiol
232269	Fluorinated ester
234050	Fluorosilicone polymer (PROVISIONAL)
234152	Alkylene diisocyanate homopolymer, reaction product with substituted polyethylene glycol, perfluoroalkyl alcohol, methyl ethyl ketoxime and perfluoroalkylene glycol (PROVISIONAL)
234389	Copolymer of tetrafluoroethene and perfluorosulfonylvinyether (PROVISIONAL)
234458	Polyfluorinated alkyl thiol
234981	Fluoroalkyl acrylate copolymer (PROVISIONAL)
235586	Fluoroalkyl acrylate copolymer (PROVISIONAL)
235724	Perfluoroalkylethylmethacrylate copolymer (PROVISIONAL)
236181	Fluorinated oligomer alcohol (PROVISIONAL)
236238	Fluoroalkyl acrylate copolymer
236750	Polyfluorinated alkyl halide
238052	Perfluoropolyether compound (PROVISIONAL)
238096	Alkyl methacrylates, polymer with substituted carbomonocycle, hydroxymethyl acrylamide and fluorinatedalkyl acrylate (PROVISIONAL)
238427	Fluoroacrylate modified urethane (PROVISIONAL)
239191	Fluoroalkyl methylacrylate copolymer
239260	Fluorinated alkylsulfonamidol urethane polymer (PROVISIONAL)
240052	Perfluoropolyether ally ether (PROVISIONAL)
240392	Fluoroalkyl methacrylate co-polymer (PROVISIONAL)
241099	Perfluorobutanesulfonamide and polyoxyalkylene containing polyurethane
241271	Perfluoropolyether methoxysilane (PROVISIONAL)
242207	Siloxanes and Silicones, aminoalkyl fluorooctyl, hydroxy-terminatedsalt
242467	Polyperfluoro alkylene glycol, perfluoroalkoxy-and hydroxy alkyl amido perfluoroalkyl terminated (PROVISIONAL)
243266	Perfluoroalkylethyl methacrylate copolymer (PROVISIONAL)
243562	Fluoro modified, polyether modified, and alkyl modified polymethylsiloxane (PROVISIONAL)
244076	Fluoroalkyl substituted siloxanes (PROVISIONAL)
244441	Fluoroalkyl acrylate copolymer modified with polysiloxanes
244781	Fluoropolymeric sulfonic acid (PROVISIONAL)
245397	Fluoroalkyl methacrylate copolymer (PROVISIONAL)
245535	Polyfluorinated alkyl thio polyacrylic acid-acrylamide
245820	Fluoroalkyl sulfonamide (PROVISIONAL)
245831	Polymer of perfluoroalkylethylmethacrylate, alkylacrylate, chloroethene, and urethane methacrylate
246118	Perfluoroalkylated polyamino acid (PROVISIONAL)
246287	Fluoroalkyl acrylate copolymer (PROVISIONAL)
247111	Fluorinated aliphatic isocyanate polymer (PROVISIONAL)

248023	Tetrafluoro acrylates copolymer with polyoxy methyl derivatives (PROVISIONAL)
248192	Perfluoroalkylethyl methacrylate copolymer, salt (PROVISIONAL)
248567	Perfluoroalkyl ethylmethacrylate copolymer
248589	Partially fluorinated alkyl betaine (PROVISIONAL)
248647	Modified fluorinated acrylate
249220	Partially fluorinated borate ester (PROVISIONAL)
249311	Fluoro-modified acrylic copolymer
249399	Fluoroalkyl acrylate copolymer
249559	Diethylene glycol, polymer with diisocyanatoalkane, polyethylene glycol monomethyl ether- and fluorinatedalkanol-blocked (PROVISIONAL)
249640	Fluoropolymeric sulfonic acid salt (PROVISIONAL)
249720	Fluoroacrylate copolymer (PROVISIONAL)
251300	Partially fluorinated alcohol, reaction products with phosphorus oxide (P2O5) (PROVISIONAL)
251662	Fluoroalkyl acrylate co-polymer (PROVISIONAL)
251797	Fluoroalkyl methacrylate copolymer (PROVISIONAL)
252290	Urethane polymer modified with perfluoroalkylsulfonamide (PROVISIONAL)
253884	Fluoroalkyl sulfonamide derivative
253975	Fluoroalkyl acrylate copolymer (PROVISIONAL)
254116	Alkyl acid fluoride (PROVISIONAL)
254456	Perfluoroalkylsulfonamidoalkyl acrylate, polymer with acrylic acid derivatives (PROVISIONAL)
254649	Polyfluoroalkyl phosphoric acid salt (PROVISIONAL)
255653	Fluoroalkyl acrylate copolymer
255700	Fluorinated acrylic copolymer (PROVISIONAL)
255846	Fluorinated acrylic copolymer (PROVISIONAL)
255993	Hexafluoropropylene-perfluoro (alkyl vinyl ether)-tetrafluoroethylene copolymer (PROVISIONAL)
256372	Fluoro modified, polyether modified polyacrylate (PROVISIONAL)
256394	Fluorinated copolymer (PROVISIONAL)
256452	Perfluorinated organic peroxide (PROVISIONAL)
256678	Perfluoroalkyl acrylate copolymer (PROVISIONAL)
257171	Polymer of perfluoroalkylethylacrylate, alkylaminomethacrylate, hydroxyalkylmethacrylate, organic acid salt
257444	Phosphoric acid, mixed esters with partially fluorinated alcohol, ammonium salts (PROVISIONAL)
257580	Partially fluorinated alcohol, reaction products with phosphorus oxide (P2O5), amine salts
257911	Perfluoroalkylethyl methacrylate copolymer (PROVISIONAL)
257922	Alkane carboxylic acids esters with long chain fatty alcohol and fluorinated alkylsulfonamidoalkyl alcohol (PROVISIONAL)
257966	Perfluoropolyether compound (PROVISIONAL)
258072	Perfluorinated difunctional acid fluoride (PROVISIONAL)
258174	Polyfluoroalkyl ether

258196	Perfluoroalkylethyl methacrylate copolymer (PROVISIONAL)
258981	Ethylene-tetrafluoroethylene-fluorinated alkene copolymer
259360	Copolymer of perfluoroalkylsulfonamidoalkyl acrylate and alkyl acrylate modified fatty acid dimers (PROVISIONAL)
259633	Polyfluorinated alkyl polyamide
259655	Perfluoroalkyl substituted alkyl sulfonate
260196	Polyfluorinated alkyl amine
260958	Fluoroalkyl sulfonamide derivative
261428	Perfluoroalkyl acrylate (PROVISIONAL)
261462	Partially fluorinated amphiphilic condensation polymer (PROVISIONAL)
261826	Fluoroalkyl methacrylate co-polymer (PROVISIONAL)
262169	Fluoroalkyl acrylate copolymer modified with polysiloxanes
262341	Copolymer of perfluorinated and alkyl methacrylates
262545	Polyfluorinated alkyl thio polyacrylamide
262885	Fluoro modified, polyether modified polyacrylate (PROVISIONAL)
263093	Polyfluorinated alkyl thio polyacrylamide
263208	Perfluoroalkylethylmethacrylate copolymer (PROVISIONAL)
263435	Polyfluorinated alkyl quaternary ammonium chloride
264165	Ammonium salt of fluorinated alkoxyfluoropropanoic acid
264621	Fluoroethylene-vinylether copolymer (PROVISIONAL)
264687	Fluoroalkyl acrylate copolymer (PROVISIONAL)
264916	Fluorinated vinyl ether polymer (PROVISIONAL)
264949	Fluorochemical ester (PROVISIONAL)
265453	Polyfluoroalkylpropanoic acid ethyl ester (PROVISIONAL)
265599	Fluorinated acrylic copolymer (PROVISIONAL)
266423	Perfluoropolyether modified silane (PROVISIONAL)
267095	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl esters, telomers with C18-26-alkyl acrylate, 1-dodecanethiol, N-(hydroxymethyl)-2-methyl-2-propenamide, polyfluorooctyl methacrylate, 2,2'-[1,2-diazenediylbis(1-methylethylidene)]bis[4,5-dihydro-1H-imidazole]hydrochloride (1:2)-initiated (PROVISIONAL)
267948	Fluorinated alkylsulfonamido acrylate copolymer (PROVISIONAL)
268781	Fluoroalkyl methacrylate copolymer (PROVISIONAL)
268883	Fluorinated sulfonamide alcohol (PROVISIONAL)
269079	Fluorinated methacrylate monomer (PROVISIONAL)
269400	Partially fluorinated alcohol substituted glycol (PROVISIONAL)
269604	2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, telomers with C18-26-alkyl acrylate, 1-dodecanethiol, N-(hydroxymethyl)-2-methyl-2-propenamide, polyfluorooctyl methacrylate and vinylidene chloride, 2,2'-[1,2-diazenediylbis(1-methylethylidene)]bis[4,5-dihydro-1H-imidazole] hydrochloride (1,2)-initiated (PROVISIONAL)
270598	Tetrafluoroethylene chlorotrifluoroethylene copolymer (PROVISIONAL)
270601	Fluoroelastomer (PROVISIONAL)
270770	Modified fluorinated acrylate (PROVISIONAL)
271364	Fluorinated polyalkyl silicones (PROVISIONAL)

271739	Urethane polymer modified with perfluoroalkylsulfonamide and polyethoxylate (PROVISIONAL)
272038	Ethylene-tetrafluoroethylene copolymer (PROVISIONAL)
272458	Fluoroolefin copolymer (PROVISIONAL)
272583	Fluoroalkyl acrylate copolymer
272618	Polyfluorinated alkyl thio acrylamide
273611	Trifluoroethene polymer with 4-(ethenyloxy)-1-butanol, ethene, ethoxy- and olefin ethoxy copolymer (PROVISIONAL)
274136	Fluorinated alkylsulfonamido polymer (PROVISIONAL)
274147	Perfluorinated polyamine (PROVISIONAL)
274352	Fluoroalkylacrylate co-polymer (PROVISIONAL)
274363	Modified fluorinated acrylate (PROVISIONAL)
274421	Fluoroalkyl acrylate copolymer (PROVISIONAL)
274512	Perfluoropolyether chlorosilane (PROVISIONAL)
274534	Trifluoroethene polymer with, 4-(ethenyloxy)-1-butanol, olefin copolymers and amine (PROVISIONAL)
274658	Partially fluorinated alcohol, reaction products with phosphorus oxide (P2O5), ammonium salts (PROVISIONAL)
274670	Fluorinated acrylic alkylamino copolymer
275719	Fluorinated amine oxide (PROVISIONAL)
275899	Perfluoropolyether-block-polytetrafluoroethylene (PROVISIONAL)
276052	Fluorinated alkenyl ether (PROVISIONAL)
276109	Siloxanes and silicones, amino alkyl substituted alkyl hydroxyl, hydroxyl fluorinated alkyl, ester salts, reaction products with mixed metal oxides (PROVISIONAL)
276303	Perfluoro alkoxy acid fluoride derivative (PROVISIONAL)
276858	Polyfluoroalkyl phosphoric acid (PROVISIONAL)
276950	Fluorinated acrylic polymer with acrylate groups (PROVISIONAL)
277055	Fluoroalkyl acrylate copolymer
277420	Fluorinated acrylic alkylamino copolymer (PROVISIONAL)
278105	Fluoroalkyl methacrylate co-polymer (PROVISIONAL)
278138	Fluoroalkyl acrylate copolymer (PROVISIONAL)
279051	Perfluoropolyether compound (PROVISIONAL)
279108	Perfluoroalkylethylmethacrylate copolymer
279755	Urethane polymer modified with perfluoroalkylsulfonamide (PROVISIONAL)

(c) Examples of PFAS by LVE case number and CASRNs.

LVE Case Number	CASRN	Chemical Name
L-00-0274	260794-09-0	2-Propenoic acid, 2-methyl-, 3-chloro-2-hydroxypropyl ester, polymers with N-(hydroxymethyl)-2-propenamide, .gamma.-.omega.-perfluoro-C8-16-alkyl acrylate, stearyl acrylate and vinyl chloride

L-00-0275	260794-06-7	2-Propenoic acid, 2-methyl-, 3-chloro-2-hydroxypropyl ester, polymers with N-(hydroxymethyl)-2-propenamide, .gamma.-.omega.-perfluoro-C8-16-alkyl acrylate and stearyl acrylate
L-00-0316	165967-96-4	Poly(oxy-1,2-ethanediyl), .alpha.,.alpha.',.alpha."-[[(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)silyldiyl]tris[oxy(dimethylsilylene)-3,1-propanediyl]]tris[.omega.-methoxy-
L-00-0328	355-37-3	Hexane, 1,1,1,2,2,3,3,4,4,5,5,6,6-tridecafluoro-
L-01-0355	452080-67-0	Boron, trifluoro(tetrahydrofuran)-, (T-4)-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, ether with 2,2-dimethyl-1,3-propanediol (2:1), bis(hydrogen sulfate), diammonium salt
L-01-0447	113507-82-7	Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-(pentafluoroethoxy)-
L-01-0470	117205-07-9	Ethanesulfonic acid, 1,1,2,2-tetrafluoro-2-(pentafluoroethoxy)-, potassium salt
L-02-0278	178241-16-2	Trisiloxane, 3-[(dimethylsilyl)oxy]-1,1,5,5-tetramethyl-3-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-02-0365	401510-99-4	2,4,13,15-Tetrasilahexadecane, 4,13-bis[(dimethylsilyl)methyl]-7,7,8,8,9,9,10,10-octafluoro-2,4,13,15-tetramethyl-
L-02-0467	178241-16-2	Trisiloxane, 3-[(dimethylsilyl)oxy]-1,1,5,5-tetramethyl-3-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-02-0468	401510-99-4	2,4,13,15-Tetrasilahexadecane, 4,13-bis[(dimethylsilyl)methyl]-7,7,8,8,9,9,10,10-octafluoro-2,4,13,15-tetramethyl-
L-03-0400	506417-14-7	Silane, bis[(1,1-dimethyl-2-propynyl)oxy]methyl(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-04-0227	507225-02-7	Silsesquioxanes, 3,3,4,4,5,5,6,6,6-nonafluorohexyl, [(dimethylsilyl)oxy]-terminated
L-04-0430	705291-24-3	Cyclotetrasiloxanes, 2,4,6,8-tetramethyl-, Si-mixed 3-(oxiranylmethoxy)propyl, and 3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]propoxy]propyl, and 2-(trimethoxysilyl)ethyl derivs.
L-04-0433	709670-53-1	Furan, tetrahydro-, polymer with 3-methyl-3-[(2,2,3,3,3-pentafluoropropoxy)methyl]oxetane, monoester with [3-(carboxyamino)methyl]-3,5,5-trimethylcyclohexyl]carbamic acid mono[2-[(1-oxo-2-propenyl)oxy]ethyl] ester, 2,2,2-trifluoroethyl ether
L-05-0013	133068-47-0	3,8,11,14-Tetraoxa-2,4-disilaheptadecane, 4-[(dimethylsilyl)oxy]-10,12,12,13,15,15,16,16,17,17,17-undecafluoro-2,4-dimethyl-10,13-bis(trifluoromethyl)-

L-05-0015	145782-39-4	Trisiloxane, 1,1,3,5,5-pentamethyl-3-[3,4,4,4-tetrafluoro-3-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]butyl]-
L-05-0016	717825-76-8	4,7,10,15-Tetraoxa-14-silaeicos-19-yn-18-ol, 14,14-dibutyl-1,1,1,2,2,3,3,5,6,6,8-undecafluoro-18-methyl-5,8-bis(trifluoromethyl)-
L-05-0072	18323-96-1	Ytterbium, tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato- κ .O, κ .O')-
L-05-0177	802935-59-7	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]-, polymer with trifluoro(trifluoromethyl)oxirane, reaction products with 3-(ethenyldimethylsilyl)-N-methylbenzenamine and 2,4,6,8-tetramethylcyclotetrasiloxane
L-06-0099	78560-47-1	Silane, trichloro(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-06-0100	85877-79-8	Silane, trimethoxy(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-06-0101	102390-98-7	Silane, triethoxy(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-06-0106	186599-46-2	Silanetriamine, N,N,N',N',N'',N''-hexamethyl-1-(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-06-0135	375-19-9	Butanimidamide, 2,2,3,3,4,4,4-heptafluoro-
L-06-0207	848407-98-7	Sulfonium, triphenyl-, salt with 1,1,2,2,3,3,4,4-octafluoro-1,4-butanedisulfonic acid (2:1)
L-06-0208	524067-96-7	Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, salt with 1,1,2,2,2-pentafluoro-N-[(pentafluoroethyl)sulfonyl]ethanesulfonamide (1:1)
L-06-0256	376-84-1	2-Propenoic acid, 2,2,3,3,4,4,5,5-octafluoropentyl ester
L-07-0097	908858-79-7	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl, chloro-terminated
L-07-0138	913292-62-3	Propanoyl fluoride, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]-, polymer with 2,2,3-trifluoro-3-(trifluoromethyl)oxirane, reaction products with 3,3'-(1,2-ethanediyl)bis[3-[(dimethylsilyl)oxy]-1,1,5,5-tetram
L-07-0158	917979-29-4	Propanol fluoride, 2,2'-[(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis(oxy)]bis[2,3,3,3-tetrafluoro-, polymer with 2,2,3-trifluoro-3-(trifluoromethyl)oxirane, reaction products with 3-(ethenyldimethylsilyl)-N-methylbenzenamine and methylbis[(1-methylethenyl)oxy]silane
L-07-0190	66137-74-4	Ethanesulfonyl fluoride, 1,1,2,2-tetrafluoro-2-(1,1,2,2-tetrafluoro-2-iodoethoxy)-
L-07-0225	882878-48-0	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl
L-07-0253	144317-44-2	Sulfonium, triphenyl-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanedisulfonate (1:1)

L-07-0254	241806-75-7	Sulfonium, tris[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4,4-nonafluoro-1-butanedisulfonate (1:1)
L-07-0367	375-96-2	Nonane, 1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-eicosafluoro-
L-07-0368	374-77-6	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-decafluoro-3,6-bis(trifluoromethyl)-
L-07-0404	799274-55-8	Iodonium, bis[4-(1,1-dimethylethyl)phenyl]-, 1,1,2,2,3,3,4,4-octafluoro-1,4-butanedisulfonate(2-) (2:1)
L-08-0097	848408-02-6	Sulfonium, triphenyl-, 2,2'-oxybis[1,1,2,2-tetrafluoroethanesulfonate] (2:1)
L-08-0213	756819-73-5	Cyclotetrasiloxane, 2,4,6,8-tetramethyl-2-[3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]propoxy]propyl]-
L-08-0214	1005771-59-4	Cyclotetrasiloxane, 2,4,6,8-tetramethyl-2-[3-[2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]propoxy]propyl]-, Si-[3-(2-oxiranylmethoxy)propyl] derivs.
L-08-0246	1010387-03-7	1,5-Trisiloxanediol, 1,1,3,5,5-pentamethyl-3-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-
L-08-0261	1010423-83-2	Siloxanes and Silicones, Me hydrogen, [[7,9,9,10,12,12,13,13,14,14,14-undecafluoro-1,1-dimethyl-7,10-bis(trifluoromethyl)-5,8,11-trioxa-1-silatetradec-1-yl]oxy]-terminated
L-08-0362	122179-35-5	Disiloxane, 1,1,3,3-tetramethyl-1,3-bis(3,3,4,4,5,5,6,6,6-nonafluorohexyl)-
L-09-0018	808752-25-2	Sulfonium, triphenyl-, salt with 4,4,5,5,6,6-hexafluorodihydro-4H-1,3,2-dithiazine 1,1,3,3-tetraoxide (1:1)
L-09-0059	862261-51-6	Sulfonium, (4-methylphenyl)diphenyl-, salt with 4,4,5,5,6,6-hexafluorodihydro-4H-1,3,2-dithiazine 1,1,3,3-tetraoxide (1:1)
L-09-0080	1072943-15-7	Borate(1-), tetrahydro-, sodium (1:1), reaction products with reduced polyimd. oxidized tetrafluoroethylene, hydrolyzed, diallyl ethers, polymers with 3-[(dimethylsilyl)oxy]-1,1,3,5,5-pentamethyl-1-[2-(trimethoxysilyl)ethyl]trisiloxane
L-09-0104	882878-48-0	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl
L-10-0129	1202381-95-0	Siloxanes and Silicones, di-Me, Bu group- and hydrogen-terminated, reaction products with 3-(ethenyldimethylsilyl)-N-methylbenzenamine and 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)propoxy]propanoyl fluoride-2,2,3-trifluoro-3-(trifluoromethyl)oxirane polymer

L-10-0130	1202381-96-1	Siloxanes and Silicones, di-Me, Bu group- and hydrogen-terminated, reaction products with 3-(ethenyldimethylsilyl)-N-methylbenzenamine and 2,2'-[(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis(oxy)]bis[2,3,3,3-tetrafluoropropanoyl fluoride]-2,2,3-trifluoro-3-(trifluoromethyl)oxirane polymer
L-10-0166	1188330-60-0	Oxetane, 2,2,3,3-tetrafluoro-, homopolymer, fluorinated, reduced, bis(2,3-dihydroxypropyl) ethers
L-10-0260	1214752-87-0	Borate(1-), tetrahydro-, sodium (1:1), reaction products with reduced polyimd. oxidized tetrafluoroethylene, hydrolyzed, diallyl ethers, polymers with 2,4,6,8-tetramethylcyclotetrasiloxane, Si-(8,13-dioxo-4,7,12-trioxa-9-azapentadec-14-en-1-yl) derivs.
L-10-0333	185911-29-9	Silanetriol, 1-(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-
L-10-0340	85857-16-5	Silane, trimethoxy(3,3,4,4, 5,5,6,6,7,7,8,8, 8-tridecafluorooctyl)-
L-11-0313	1304011-35-5	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, polymer with 1,3-diisocyanatomethylbenzene, polyethylene glycol mono-Me ether- and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octanol-blocked
L-11-0313	1304012-00-7	Poly[oxy(methyl-1,2-ethanediyl)], .alpha.-hydro-.omega.-hydroxy-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), polymer with 1,3-diisocyanatomethylbenzene, polyethylene glycol mono-Me ether- and 3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluoro-1-octanol-blocked
L-12-0008	307-08-4	1H-Fluorene, 1,1,2,2,3,3,4,4,4a,4b,5,5,6,6,7,7,8,8,8a,9,9,9a-docosafluorododecahydro-
L-12-0084	882878-48-0	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl
L-12-0446	882878-48-0	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl
L-13-0098	370097-12-4	1-Propene, 1,1,2,3,3,3-hexafluoro-, oxidized, polyimd., reduced, hydrolyzed, reaction products with ammonia
L-13-0170	2690-05-3	Pentane, 1,1,1,2,2,3,4,4,5,5,5-undecafluoro-3-(1,1,2,2,2-pentafluoroethyl)-
L-13-0171	50285-18-2	Pentane, 1,1,1, 2,2,3,4,5,5,5-decafluoro-3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-4-(trifluoromethyl)-
L-13-0172	306-98-9	Cyclohexane, 1,1,2,2,3,3,4,4,5,6-decafluoro-5,6-bis(trifluoromethyl)-
L-13-0173	335-21-7	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-undecafluoro-6-(1,1,2,2,2-pentafluoroethyl)-
L-13-0174	354-97-2	Pentane, 1,1,1,2,2,3,4,5,5,5-decafluoro-3-(1,1,2,2,2-pentafluoroethyl)-4-(trifluoromethyl)-
L-13-0175	374-76-5	Cyclohexane, 1,1,2,3,3,4,5,5,6-nonafluoro-2,4,6-tris(trifluoromethyl)-

L-13-0176	423-02-9	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-undecafluoro-6-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]-
L-13-0178	1736-47-6	1H-Indene, 1,1,2,2,3,3,4,5,6,7-decafluoro-2,3-dihydro-
L-13-0179	51294-16-7	Napthalene, heptafluorodecahydro(trifluoromethyl)-
L-13-0622	15242-17-8	1-Propene, 3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethoxy]-
L-13-0623	15538-93-9	Silane, trichloro[3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethoxy]propyl]-
L-13-0624	19116-61-1	Silane, trimethoxy[3-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethoxy]propyl]-
L-14-0440	211931-77-0	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha.-[tetrafluoro(trifluoromethyl)ethyl]-.omega.-[1,2,2,2-tetrafluoro-1-[[3-(trimethoxysilyl)propoxy]methyl]ethoxy]-
L-15-0011	173524-60-2	Propanamide, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]-N-[3-(2,4,6,8-tetramethylcyclotetrasiloxan-2-yl)propyl]-
L-15-0443	335-23-9	Cyclohexane, 1,1,2,2,3,3,4,5,5,6-decafluoro-4,6-bis(1,1,2,2,2-pentafluoroethyl)-
L-15-0444	354-96-1	Butane, 1,1,1,2,3,4,4,4-octafluoro-2,3-bis(trifluoromethyl)-
L-15-0445	355-04-4	Pentane, 1,1,1,2,2,3,3,4,5,5,5-undecafluoro-4-(trifluoromethyl)-
L-16-0337	374-59-4	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-undecafluoro-6-(1,1,2,2,3,3,3-heptafluoropropyl)-
L-16-0341	882878-48-0	Siloxanes and Silicones, di-Me, Me 3,3,4,4,5,5,6,6,6-nonafluorohexyl
L-17-0102	374-60-7	Cyclohexane, 1,1,2,2,3,3,4,4,5,5,6-undecafluoro-6-(1,1,2,2,3,3,4,4,4-nonafluorobutyl)-
L-20-0016	2374700-01-1	Siloxanes and Silicones, di-Me, 3,3,4,4,5,5,6,6-nonafluorohexyl group terminated
L-20-0044	631842-87-0	1-Pentadecene, 12,12,13,13,14,14,15,15,15-nonafluoro-
L-20-0045	2301857-79-2	Silane, trichloro(12,12,13,13,14,14,15,15,15-nonafluoropentadecyl)-
L-91-0059	83048-65-1	Silane, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)trimethoxy-
L-91-0239	29457-72-5	1-Octanesulfonic acid, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-, lithium salt (1:1)
L-92-0121	374-76-5	Cyclohexane, 1,1,2,3,3,4,5,5,6-nonafluoro-2,4,6-tris(trifluoromethyl)-
L-92-0123	306-98-9	Cyclohexane, 1,1,2,2,3,3,4,4,5,6-decafluoro-5,6-bis(trifluoromethyl)-
L-93-0061	182700-90-9	1-Octanesulfonamide, 1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptafluoro-N-methyl-, reaction products with benzene-sulfur chloride (S2Cl2) reaction products chlorides
L-95-0212	355-74-8	1,6-Hexanediol, 2,2,3,3,4,4,5,5-octafluoro

L-95-0213	2264-01-9	2-Propenoic acid, 1,1'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl) ester
L-95-0354	166089-96-9	Siloxanes and silicones, Me hydrogen, [[dimethyl[3,3,4,4-tetrafluoro-4-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]butyl]silyl]oxy]-terminated
L-96-0371	78560-45-9	Silane, trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)-
L-97-0041	132910-12-4	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha., .alpha'-(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis[.omega.-(1-carboxy-1,2,2,2-tetrafluoroethoxy)-
L-97-0042	162442-49-1	Poly[oxy(trifluoro(trifluoromethyl)-1,2-ethanediyl)], .alpha., .alpha'-(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis[.omega.-(1,2,2,2-tetrafluoro-1-[(2-propenylamino)carbonyl]ethoxy)-
L-97-0063	2264-01-9	2-Propenoic acid, 1,1'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl) ester
L-97-0064	25965-83-7	2-Propenoic acid, 2-methyl-(undecafluorocyclohexyl)methyl ester
L-97-0108	174393-72-7	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, Me vinyl, [(ethenyldimethylsilyl)oxy]-terminated, ethers with trifluoro(trifluoromethyl)oxirane homopolymer 1,2,2,2-tetrafluoro-1-(hydroxymethyl)ethyl tetrafluoro(trifluoromethyl)ethyl ether
L-97-0109	174393-73-8	Siloxanes and silicones, di-Me, 3-hydroxypropyl Me, Me hydrogen, ethers with trifluoro(trifluoromethyl)oxirane homopolymer 1,2,2,2-tetrafluoro-1-(hydroxymethyl)ethyl tetrafluoro(trifluoromethyl)ethyl ether
L-97-0181	17978-75-5	Erbium, tris(6,6,7,7,8,8,8-heptafluoro-2,2-dimethyl-3,5-octanedionato-O,O')-
L-98-0261	63513-12-2	Phosphonic acid, [[4-[(heptafluorononenyloxy]phenyl]methyl]-
L-98-0327	355-93-1	2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5-octafluoropentyl ester
L-99-0272	183905-82-0	Propanyl fluoride, 2,2'-[(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis(oxy)bis[2,3,3,3-tetrafluoro-, polymer with trifluoro(trifluoromethyl)oxirane, hydrolyzed
L-99-0273	183905-83-1	Propanyl fluoride, 2,2'-[(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis(oxy)bis[2,3,3,3-tetrafluoro-, polymer with trifluoro(trifluoromethyl)oxirane, reaction products with 2-propen-1-amine
L-99-0275	128194-56-9	Silanol, (3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)dimethyl-
L-99-0276	173524-60-2	Propanamide, 2,3,3,3-tetrafluoro-2-[1,1,2,3,3,3-hexafluoro-2-(heptafluoropropoxy)propoxy]-N-[3-(2,4,6,8-tetramethylcyclotetrasiloxan-2-yl)propyl]-

L-99-0277	165320-75-2	1,5-Trisiloxanediol, 3-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)-1,1,3,5,5-pentamethyl-
L-99-0278	185701-90-0	Propanoyl fluoride, 2,2'-[(1,1,2,2-tetrafluoro-1,2-ethanediyl)bis(oxy)]bis[2,3,3,3-tetrafluoro-, polymer with trifluoro(trifluoromethyl)oxirane, reaction products with N-[3-(triethoxysilyl)propyl]-1,2-ethanediamine

(d) Examples of PFAS by LVE case number, without CASRNs.

LVE Case Number	Chemical Name or Generic Name
L-01-0271	Iodonium, bis(4-(1,1-dimethylethyl)phenyl)-, salt with 1,1,2,2,3,3,4,4,4-nonafluoro-N-[(nonafluorobutyl)sulfonyl]-1-butanefulfonamide (1:1)
L-10-0356	2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-[3,3,4,4, 5,5,6,6, 7,7,8,8,8-tridecafluorooctyl)oxy]poly(oxy-1,2-ethanediyl) and 2-propenoic acid
L-89-0099	Triethoxy(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane
L-89-0131	Trichloro(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)silane
L-95-0011	Tetrafluorethene, polymer with trifluoro(trifluoromethoxy)ethene and 1,1,1,2,2,3,3-heptafluoro-3-[(trifluoroethenyl)oxy]propane
L-95-0070	Perhalopolyoxyperfluoroalkenemethylenepolyethoxy alcohols, esters with phosphorousoxychloride
L-00-0054	Polyfluoroalkylether
L-00-0056	Fluoropolyether derivative
L-00-0151	Perfluoroalkyl phosphate diethanolamine salt
L-00-0313	Fluorosilane
L-00-0314	Fluorosilane
L-00-0371	Per fluorobutanesulfonate
L-00-0373	Perfluorether
L-00-0375	Perfluoroether nitrile
L-00-0376	Perfluoroalkyl fluoride
L-00-0377	Perfluorovinyl ether
L-00-0378	Perfluoroalkyl acid fluoride
L-00-0386	Polyfluoroalkylether
L-00-0387	Polyfluoroalkylether
L-01-0013	Perfluorobutanesulfonate
L-01-0048	Ethylene - tetrafluoroethylene copolymer
L-01-0142	Perfluoroalkyl ester
L-01-0143	Perfluoroalkyl acid fluoride
L-01-0150	Fluorine-substituted cyclosiloxane
L-01-0151	Fluorochemical curative
L-01-0152	Perfluoroalkyl ester
L-01-0153	Perfluoroalkyl nitrile
L-01-0158	Fluoro acrylic telomer

L-01-0261	Fluoroalkylsulfonimide
L-01-0265	Fluoroalkyl alkylammonium salt
L-01-0373	Polyperfluorooxetane-trimethoxysilane
L-01-0410	Substituted fluoro alkane sulfonic acid
L-01-0432	Substituted fluoro alkane sulfonic acid
L-01-0435	Fluorinated acrylic ester random copolymer
L-01-0526	Polyperfluorooxetane-trimethoxysilane
L-01-0548	Triazatriphosphorine, fluorobutoxy ethoxy, phenoxy phenoxy derivatives
L-01-0549	Phenol, reaction products with triazatriphosphorine and reduced, oxidized tetrafluoroethylene
L-02-0007	Phenol, reaction products with triazatriphosphorine and fluorinated triethylene glycol mono butyl ether
L-02-0017	Salt of fluoropolyether derivative
L-02-0080	Perfluorooctanesulfonate
L-02-0192	Fluorinated polymer acrylate
L-02-0247	Fluorochemical acid onium
L-02-0318	Perfluorooctanesulfonate
L-02-0356	Polyfluoroalkylether
L-02-0515	Carboxylic acid, fluoroalkyl ester
L-02-0516	Carboxylic acid, fluoroalkyl ester
L-03-0015	Triphenyl sulfonium perfluoro-1-butane sulfonate
L-03-0037	Polyfluoroalkylether
L-03-0086	Polyfluoroalkylether
L-03-0110	Polyfluoroalkylether
L-03-0119	Fluoro acrylic polymer (telomer type)
L-03-0133	Fluoro acrylic polymer (telomer type)
L-03-0142	Ethylene - tetrafluoroethylene copolymer
L-03-0232	Arylated onium perfluoroalkyl sulfonyl imide
L-03-0233	Carboxylic acid, fluoroalkyl ester
L-03-0286	Fluoroalkyl sulfonamide
L-03-0288	Ammonium fluoroalkyl sulfonamide
L-03-0289	Fluoroalkyl alkylammonium salt
L-03-0296	Fluoroalkylsulfonimide
L-03-0297	Fluoroalkyl sulfonamide
L-03-0481	Phosphonic acid, alkyl ester, reaction products with a fluorinated alkene
L-04-0008	Bis [3-perfluoroalkyl (C8)-2-hydroxypropyl] polyoxyethylene ether
L-04-0125	Fluorinated silane
L-04-0211	Chlorofluoroalkylether
L-04-0220	Perfluoro polymer with alcoholamine
L-04-0231	Perfluoro polymer with alkylaminoethanol
L-04-0284	Fluoroalkyl amidino salt
L-04-0286	Fluorochemical nitrile
L-04-0338	Ammonium fluoroalkyl sulfonamide
L-04-0365	Fluoroalkyl sulfonamide derivative
L-04-0366	Potassium salt of fluoroalkyl sulfonate
L-04-0367	Sodium salt of fluoroalkyl sulfonate
L-04-0368	Lithium salt of fluoroalkyl sulfonate

L-04-0369	Ammonium salt of fluoroalkyl sulfonate
L-04-0459	Fluorinated cyclo alkanes
L-04-0472	Fluoroalkyl surfactant
L-05-0099	Fluoroalkyloxy acrylate monomer
L-05-0152	Thiopyranium tetrahydro-phenyl-, salt with nonafluoro-butanesulfonic acid
L-05-0160	Aliphatic urethane modified acrylate polymer, perfluoroalkoxy amido blocked
L-05-0164	Triphenylsulfonium fluoroalkylsulfonate
L-05-0193	1-Perfluoro butanone, 1-carbopolycyclic-[(perfluoro, butyl)sulfonyl] oxime
L-05-0203	Fluoropolyether derivative
L-05-0215	Fluorine-substituted alkyl-substituted organosilicon
L-05-0316	1-Perfluoro pentanone, 1-carbopolycyclic-[(perfluoro, butyl)sulfonyl]oxime
L-05-0317	1-Perfluoro propanone, 1-carbopolycyclic-[(perfluoro, butyl)sulfonyl]oxime
L-05-0325	Sulfonium, alkoxy naphthalenyldiphenyl-, salt with fluorohydro-dithiazine tetraoxide
L-06-0102	Alkane-1-one, 1-(9H-fluoren-2-yl)-polysubstituted-, O-[(nonafluorobutyl)sulfonyl]oxime
L-06-0211	Nonafluoroalkyl sulfonyl oxime fluoren compound
L-06-0214	Sulfonium, triphenyl-, salt with perfluoroalkyl sulfonic acid
L-06-0241	Nonafluoroalkyl sulfonyl oxime, dodecafluoro fluoren compound
L-06-0319	Fluoroalkyl alkenoate(c=3~5), polymer with alkyloxirane(c=2~5) homopolymer monoalkyl(c=1~5) alkyl-alkenoate(c=3~5), alkyloxirane(c=2~6) polymer alkyl-alkenoate(c=3~5), alkyl(c=1~30) alkyl-alkenoate(c=3~5), azobisnitrilealkane initiated
L-06-0336	Substituted fluoro alkane sulfonic acid
L-06-0381	Fluorinated surfactant
L-06-0391	A fluoren oxime fluoroalkyl sulfonate
L-06-0392	A fluoren oxime fluoroalkyl sulfonate
L-06-0400	Fluoroalkyl alkenoate(c=3-5), polymer with alkyloxirane(c=2-5) homopolymer monoalkyl(c=1-5) alkyl-alkenoate(c=3-5), alkyl(c=1-30) alkyl-alkenoate(c=3-5), alkyl(c=1-5)-oxo-alkkenyl-[(alkyl(c=1-5)-oxo-alkenyl)oxy]poly(oxy-ethanediyl)
L-07-0012	Fluorochemical amide derivative
L-07-0013	Fluorochemical amide derivative
L-07-0055	Oxetane, 2,2,3,3-tetrafluoro-, homopolymer, fluorinated, reduced, mono(alkylsilylalkyl)ether
L-07-0091	Perfluoropolyoxyalkane
L-07-0150	Trimethoxysilyl terminated perfluoropolyether
L-07-0205	Arylsulfonium perfluoroalkyl salt
L-07-0206	Hexane, 1,6-diisocyanato-, homopolymer, 2-hydroxyethyl acrylate- and reduced fluorinated heteromonocycle homopolymer-blocked
L-07-0213	Perfluoroalkyl aromatic imide
L-07-0229	Iodonorbornene perfluoroalkoxysulfonylfluoride
L-07-0230	Norbornene perfluoroalkoxysulfonyl fluoride
L-07-0231	Norborneperfluoroalkyl sulfonate
L-07-0233	Tert-butylphenyltetramethylsulfonium norborneneperfluoroalkylsulfonate
L-07-0238	Fluorinated surfactant
L-07-0273	Fluoroalkylsilane ester, hydrolyzed
L-07-0323	Hydrofluoropropane
L-07-0324	Hydrofluoropropane
L-07-0328	Fluoropolymer
L-07-0413	Functionalized perfluoropolyether
L-08-0004	Acrylic copolymer contain fluoroalkyl groups

L-08-0073	Perfluorinated polysulfonic acid complexed with an organic conjugated polymer
L-08-0091	Sulfonium, triphenyl-, salt with hexafluorosulfonimide heterocycle (1:1)
L-08-0108	Polyfluoro-iodo-1-[(polyfluoroethenyl)oxy]alkane
L-08-0121	Perfluoropolyether urethane acrylate
L-08-0140	Fluoro silicone
L-08-0167	Fluoroalkyl phosphate
L-08-0168	Fluoroalkyl phosphate
L-08-0169	Fluoroalkyl phosphate
L-08-0172	Dithiazine-fluorodihydro-tetraoxide
L-08-0247	Fluorinated surfactant
L-08-0251	Fluoroalkyloxypolyurethane silane
L-08-0327	Fluorosilicone
L-08-0379	Fluoropolymer
L-08-0409	Fluorinated sulfonamide alcohol
L-09-0028	Fluoroalkyl phosphate
L-09-0031	Fluoroalkyl polyester
L-09-0096	Fluorinated ester
L-09-0097	Fluorinated alcohol
L-09-0098	Fluorinated acrylate
L-09-0099	Fluoroacrylate derivative and oligomers
L-09-0102	Fluoropolymer acrylate
L-09-0122	Poly(oxy-1,2-ethanediyl), .alpha.-(polyfluoroalkyl)-.omega.-hydroxy-
L-09-0133	Fluoroelastomer curative
L-09-0166	Fluoropolymer acrylate
L-09-0210	Polyfluoroalkylether
L-09-0239	Modified tetrafluoroethylene-hexafluoropropene-vinylidene fluoride copolymer
L-09-0245	Bis(alkyl aryl) iodonium perfluorobutanesulfonyl-1-perfluorobutanesulfonamide
L-09-0260	Bis(alkyl aryl) iodonium perfluorobutanesulfonate
L-09-0331	Fluorinated acrylic ester copolymer (telomer type)
L-09-0352	Fluorinated sulfonyl fluoride
L-09-0358	Perfluorocyclo-1,3-bis(sulfonyl)imide salt
L-09-0366	Fluoropolymer
L-09-0375	Perfluoropolyether iodide
L-10-0035	Polyperfluorooxetane-trimethoxysilane
L-10-0058	Perfluoroalkyl cycloaliphatic imide
L-10-0121	Polyfluorinated phenylpyrimidine ether
L-10-0122	PFAS salt
L-10-0141	Phenyl benzothiophenium salt with hexafluorodihydro dithiazine tetraoxide
L-10-0160	Perfluorosulfonic acid copolymer
L-10-0169	Polyfluoroalkylated pyrimidylphenyl benzyl ether
L-10-0170	Polyfluoroalkylated pyrimidylphenol
L-10-0199	Fluorinated organopolysilazane
L-10-0239	Polyfluoroalkylated phenylpyrimidine diether
L-10-0241	Polyfluoroalkylated phenylpyrimidine diether
L-10-0293	Fluorinated iodooctanol
L-10-0294	Fluorinated octanol
L-10-0316	Fluoroalkylated cationic compound
L-10-0339	Fluorinated octanol tosyl ester
L-11-0038	Fluoropolyether modified polyoxyethylene compound

L-11-0045	Reaction products with hydride reduction substance of fluorinated homopolymer
L-11-0046	Hydride reduction substance of fluorinated homopolymer
L-11-0065	Fluorinated acrylic copolymer
L-11-0066	Fluorinated acrylic copolymer
L-11-0133	Fluorosurfactant
L-11-0134	Fluorinated acrylic copolymer
L-11-0138	Biphenyl biphenyl-ylthiophenyl phenyl sulfonium, trifluorotris pentafluoroalkyl phosphate
L-11-0191	Fluoropolymer acrylate
L-11-0203	Hydride reduction substance of perfluoropolyoxyalkane
L-11-0243	Fluorinated polymer
L-11-0369	Fluorinated polymer
L-11-0407	Acrylic fluoropolymer
L-12-0020	Perfluoroalkyl acrylate polymer
L-12-0062	Perfluoropolyetheramide derivative
L-12-0063	Fluorinated quaternary ammonium salt silane derivative
L-12-0076	2-Propenoic acid, 2-methyl-, 2-[[[2-[(polyfluorooctyl)oxy]][(polyfluorooctyl)oxy]methyl]ethoxy]carbonyl]amino]ethyl ester, polymer with alpha-(2-methyl-1-oxo-2-propen-1-yl)-omega-hydroxypoly[oxy(methyl-1,2-ethanediyl)], alkyl peroxide-initiated
L-12-0110	Perfluoroacrylate copolymer
L-12-0129	2-Propenoic acid, 2-methyl-, 2-hydroxybutyl ester, polymers with substituted methacrylate and reduced Me esters of reduced polymd. oxidized polyfluoroalkene acrylates, N-[2-(1-oxo-2-propen-1-yl)oxy]ethyl]carbamates, alkyl peroxide-initiated
L-12-0131	Poly(oxy-1,2-ethanediyl), -hydro--hydroxy-, ether with polyfluoro alkanediol
L-12-0138	2-Propenoic acid, 2-methyl-, 2-[[[2-[(polyfluorooctyl)oxy]][(polyfluorooctyl)oxy]-methyl]ethoxy]carbonyl]amino]ethyl ester, polymer with .alpha.-(substituted propenyl-1-yl)-.omega.-hydroxypoly[oxt(methyl-1,2-ethanediyl)], substituted peroxyate-initiated
L-12-0144	2-Propenoic acid, 2-methyl-, methyl ester, polymer with isooctadecyl 2-propenoate, alpha-(2-methyl-1-oxo-2-propen-1-yl)-omega-methoxypoly(oxy-1,2-ethanediyl), alpha-(2-methyl-1-oxo-2-propen-1-yl)-omega-[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl), polyfluorohexyl 2-propenoate and rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate, alkyl peroxide-initiated
L-12-0185	Perfluoropolyether compound
L-12-0224	Bis[tris(Modified oxyphenyl) sulfonium] salt with perfluorobutanedisulfanate
L-12-0228	Perfluoropolyether
L-12-0229	Perfluoropolyether
L-12-0260	Substituted fluoroalkylsulfonate arylonium salt
L-12-0272	2-Propenoic acid, 2-methyl-, polysubstituted-propyl ester, polymer with 2,2,3,3,4,4,4-heptafluoro-1-substituted-butyl 2-methyl-2-propenoate, di-Me 2,2'-(1,2-diazenediyl)bis[2-methylpropanoate]-initiated
L-12-0285	Modified arylsulfonium perfluoroalkyl salt
L-12-0287	Fluorinated polymer
L-12-0307	Polyalkylammonium polyfluoroalkanesulfonate
L-12-0367	Alkyl ester fluorinated telomer with alkyl thiol plus silyl esters
L-12-0375	fluorine surfactant
L-12-0411	Fluoropolyether urethane methacrylate derivative
L-12-0454	Perfluoropolyether Alkyl Silane Derivative
L-12-0456	Perfluoropolyether Alkyl Allyl Ether

L-13-0026	Fluoroalkane
L-13-0031	2-Propenoic acid, 2-methyl-, heterotricycloalkyl ester, polymer with 2,2,3,3,4,4,4-heptafluoro-1-substituted-butyl 2-methyl-2-propenoate, di-Me 2,2'-(1,2-diazenediyl)bis[2-methylpropanoate]-initiated
L-13-0034	Perfluoroalkyl acrylate copolymer
L-13-0042	Acrylic copolymer solution containing fluoroalkyl groups
L-13-0060	Perfluoropolyether-block-Polytetrafluoroethylene
L-13-0070	Perfluoroelastomer
L-13-0096	2-Propenoic acid, 2-methyl-, methyl ester, polymer with isooctadecyl 2-propenoate, alpha-(2-methyl-1-oxo-2-propen-1-yl)-omega-methoxypoly(oxy-1,2-ethanediyl), alpha-(2-methyl-1-oxo-2-propen-1-yl)-omega-[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl), polyfluorohexyl 2-propenoate and rel-(1R,2R,4R)-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate, alkyl peroxide-initiated
L-13-0097	Fluorinated polymer
L-13-0125	Fluoro acrylic polymer
L-13-0150	Perfluoroalkyl acrylate copolymer
L-13-0155	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with polyfluoro alkanediol
L-13-0158	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with polyfluoro alkanediol
L-13-0160	Phosphazene PFPE derivative – Hexaol
L-13-0187	Perfluoropolyether derivative
L-13-0219	Poly(Fluorinated Propanoic Acid)
L-13-0224	Fluorinated acrylic copolymer
L-13-0226	Fluorinated acrylic copolymer
L-13-0244	Fluorinated acrylic copolymer
L-13-0272	Perfluoroalkyl ester
L-13-0273	Perfluoroalkyl acid fluoride
L-13-0279	Fluorinated acrylic ester telomer
L-13-0286	Fluorinated acrylic ester telomer
L-13-0393	Perfluoroalkoxide salt
L-13-0463	Fluorinated acrylic copolymer
L-13-0496	fluoroalkyl fluoroalkylimidoilamidine
L-13-0620	Aklyl,fluoro-aklyl silanol
L-13-0728	Sulfonium, dialkyl (dialkoxy carbopolycle), salt with polyfluoro-N-(polyfluoroalkyl)sulfonyl substituted amide
L-13-0729	C6 Perfluorotelomer Compound
L-14-0022	Acid fluoride
L-14-0234	Sulfonium, polycarbomonocycle, polyfluoroalkanoate (1:1)
L-14-0339	Fluoropolymeric Ester
L-14-0371	Ethylene,1,1,2,2,-tetra-fluoro,oxidized,polymerized,terminal-functionalized
L-14-0374	Fluorinated silane
L-14-0420	Fluorinated aryl sulfonimide
L-14-0449	Fluoroelastomer
L-14-0484	Fluorochemical polymer
L-14-0496	Oxathianium substituted tricycloalkyloxycarbonyl difluoro methane sulfonate
L-15-0027	Fluoroacrylate copolymer
L-15-0035	Perfluoroalkyl modified organopolysiloxane
L-15-0090	Fluoroalkyl derivative

L-15-0196	Poly(oxy-1,2-ethanediyl), .alpha.-hydro-.omega.-hydroxy-, ether with polyfluoro alkanediol
L-15-0223	Fluoroalkenyl polyglycol
L-15-0248	Siloxanes and silicones fluorinated copolymer
L-15-0262	Ethylene-Tetrafluoroethylene copolymer
L-15-0302	Fluoroacrylate polymer
L-15-0334	Fluorinated sulfonate salt
L-15-0354	Perfluorinated Polysulfonic Acid Complexed with an Organic Conjugated Polymer
L-15-0423	Perfluoropolyether
L-16-0035	Perfluoropolyether-trimethoxysilane
L-16-0051	Fluorinated acrylic terpolymer
L-16-0186	Fluorosilicone resin
L-16-0190	Pentane perfluorocarbon
L-16-0204	Pentane perfluorocarbon
L-16-0208	Pentane perfluorocarbon
L-16-0211	Cyclohexane perfluorocarbon
L-16-0215	Cyclohexane perfluorocarbon
L-16-0216	Cyclohexane perfluorocarbon
L-16-0221	Cyclohexane perfluorocarbon
L-16-0222	Perfluoroalkane
L-16-0223	Perfluorocarbon
L-17-0271	Pentane perfluorocarbon
L-17-0285	Fluorinated urethane acrylate
L-17-0315	Ethylene,1,1,2,2,-tetra-fluoro,butylene,1,1,2,2,3,3,4,4-octafluoro,oxidized,polymerized,terminal-functionalized
L-17-0334	Sulfonium, Triphenyl tetrafluoro heterohexacyclic ethanesulfonate salt
L-17-0339	Fluorinated Silicic acid, methyl ester
L-18-0023	Fluorinated sulfonamide alcohol, polymer with 1,4-butanediol, 1,6-diisocyanatohexane, .alpha.-hydro-.omega.-hydroxypoly[oxy(methyl-1,2-ethanediyl)], and diol
L-18-0127	Thiophenium, 1-(2,7-disubstituted-1-naphthalenyl)tetrahydro-, salt with polyfluoro-N-polyfluoroalkylsulfonyl-1-alkanesulfonamide(1:1)
L-18-0267	Siloxanes and Silicones, di-Me, Me polyfluoro-
L-18-0304	Alkanedioic acid, polyfluoro-, substituted alkyl alkenyl ester, polymer substituted alkane substituted bis dialkyl
L-19-0033	Alkyl carbanate, perfluoro-alkyl ester
L-19-0063	Aliphatic diisocyanate polymer with esters of reduced polymd. oxidized fluoroethylene, acrylate blocked
L-19-0170	Aminoalkenyl, reaction products with reduced fluorooxetane homopolymer fluoromethanesulfonate, trichlorosilane and alkoxymethane
L-19-0190	Polyfluoropropanoic acid homopolymer
L-19-0233	Fluoroalkyl-acrylate modified hydroxy-functional polysiloxane
L-20-0026	Silane, trialkoxyvinyl-, polymer with alkoxyethene and 1,1,2,2-tetrafluoroethene
L-20-0061	Fluoroalkylepoxide
L-20-0084	Polymer of perfluoroalkylethyl methacrylate, hydroxyalkyl methacrylate
L-20-0085	Perfluoro alkanic acid, perfluoro alkoxy
L-20-0132	2-Propenoic acid, 2-methyl-, methyl ester, polymer with isooctadecyl 2-propenoate, .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-methoxypoly(oxy-1,2-ethanediyl), .alpha.-(2-methyl-1-oxo-2-propen-1-yl)-.omega.-[(2-methyl-1-oxo-2-propen-1-yl)oxy]poly(oxy-1,2-ethanediyl), polyfluorohexyl 2-propenoate and rel-(1R,2R,4R)-

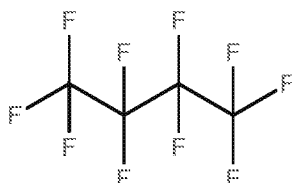
	1,7,7-trimethylbicyclo[2.2.1]hept-2-yl 2-propenoate, alkyl peroxide-initiated
L-85-0008	Alkenyl acid, polyfluoro disubstituted pentanediyl ester
L-85-0051	Fluorinated alkanesulfonamide, halide salt
L-85-0072	Per(chlorofluoro)telomer sulfonic acid
L-85-0073	Per(chlorofluoro)telomer ester
L-85-0074	Per(chlorofluoro)telomer nitrile
L-85-0075	Per(chlorofluoro)telomer imidoyl amidine
L-86-0067	Bis(substituted phenyl)polyoxyperfluoroalkylene
L-88-0010	Fluoroalkyl quaternary ammonium acetate
L-88-0013	Fluorinated carboxylic acid salt
L-88-0027	Fluoroalkene
L-88-0028	Fluoroalkyl nitrile
L-88-0029	Fluoroalkyl amine
L-88-0030	Fluoroalkyl isocyanate
L-88-0035	Inert perfluorocarbon liquid
L-88-0036	Inert perfluorocarbon liquid
L-88-0164	Inert perfluorocarbon liquid
L-88-0165	Inert perfluorocarbon liquid
L-88-0174	Fluoroalkylated protein A
L-88-0175	Fluoroalkylated monoclonal antibody
L-89-0045	Polyfluorocarboxylic acid
L-89-0052	Inert perfluorocarbon liquid
L-89-0118	Fluorinated amide
L-89-0119	Fluorinated sulfonamide
L-89-0120	Fluorochemical epoxy
L-89-0164	Phosphonic acid [[(perfluoroalkenyloxy)phenyl]methyl]-, zinc salt (2:1)
L-89-0225	Isocyanate terminated perfluoropolyoxyalkene
L-89-0236	Fluorine containing acrylate
L-89-0277	Dicarboxyperfluoropolyoxyalkane
L-90-0067	Fluorinated polyalkylakoxysilane
L-90-0106	Perfluoroalkyl cyclohexyl sulfonate salt
L-90-0260	Fluoroalkylether
L-90-0261	Fluoroalkylether
L-90-0262	Fluoroalkylalcohol
L-90-0263	Fluoroacrylate monomer
L-90-0455	Fluorinated acrylic ester copolymer
L-90-0456	Fluorinated acrylic ester copolymer
L-90-0592	Perfluorinated liquid
L-91-0142	Perfluoropolyether derivative
L-91-0178	Quaternary ammonium perfluoroalkyl carboxylate
L-91-0259	Fluorochemical polyurethane
L-92-0039	Peroxide curable fluoroelastomer of vinylidene fluoride and tetrafluoroethylene
L-92-0120	Quaternary ammonium salt of fluorinated alkyl-aryl amide
L-92-0151	Fluorochemical acrylic acid copolymer
L-92-0185	Perfluoroether ester
L-92-0186	Perfluoroether derivative
L-92-0194	Cationic fluorinated surfactant
L-92-0201	Substituted fluorinated elastomer
L-93-0082	Fluorourethane

L-93-0191	Fluorochemical sulfonate salt
L-94-0060	Perfluoroalkyl sodium salt
L-94-0301	Fluorinated sulfide
L-94-0337	Polymer of HFP, VF ₂ , TFE & fluoro alkoxy methane
L-95-0017	N-Alkyl perfluoropolyether carboxamide
L-95-0056	Fluoroalkyl phosphate
L-95-0077	Fluorinated disulfide
L-95-0078	Fluorinated sulfide
L-95-0079	Fluorinated sulfide
L-95-0107	Perfluoro-polyether-ethoxylated alcohol
L-95-0109	Fluorinated disulfide
L-95-0134	Amine oxide, dimethyl (polyfluoro-hydro-alkyl)
L-95-0135	Amine oxide, dimethyl (polyfluoro-alkyl)
L-95-0154	Fluoroacrylate polymer
L-95-0176	Fluorinated acrylic ester copolymer
L-95-0178	Ammonium perfluoroalkyl carboxylate
L-95-0186	Fluorinated surfactant
L-95-0261	Fluorochemical acrylate copolymer
L-95-0270	Perfluoro polyether amido silane
L-96-0009	Polyfluoroalkylether
L-96-0101	Dicarboxyperfluoropolyoxyalkane
L-96-0132	Perfluoroalkyl-alkyl urethane
L-96-0219	Perfluoro oxygenated oligomers
L-96-0257	Fluoroethylene-vinylether copolymer
L-96-0325	Fluoroalkyltriisocyanatosilane
L-96-0355	Fluorinated acrylic ester copolymer
L-96-0368	alpha-Methyl-omega-perfluoroalkyl polyoxyethylene
L-96-0405	N-Alkyl perfluoropolyether carboxamide
L-96-0436	Perfluoropolyether diol, magnesum salt
L-96-0452	Hexafluoropropene oligomers and reaction products
L-96-0453	N-(Anthraquinoyl) perfluoropoly ether carboxamide
L-97-0038	Polyfluoro-1-octanethiol
L-97-0056	2-Propenoic acid, 2-substituted ethyl ester, telomer with polyfluoro-1-octanethiol
L-97-0115	Fluorinated acrylic ester copolymer
L-97-0198	Polyfluorocarboxylic acid
L-97-0281	Fluoroalkylchlorosilane
L-97-0340	Fluorochemical ether
L-97-0341	Fluorochemical silane
L-97-0413	Mixture of perfluoropropanediol phosphate
L-97-0439	Phenyl fluorosulfate
L-97-0447	Polyfluoralkylether
L-97-0459	Acrylic polymer, fluoroalkyl, ethoxylate and silyl ester
L-97-0468	Perfluoroalkyl-alkyl urethane
L-97-0471	Polyfluoroalkylalkoxysilane oligomer
L-98-0028	Bis[3-perfluoroalkyl (C ₈) -2-hydroxypropyl] polyoxyethylene ether
L-98-0067	Fluorinated paralyene
L-98-0154	Polyfluoro-sulfonic acid salt
L-98-0281	Fluoroalkanol substituted benzene
L-98-0298	Fluorocarbon cresyl titanate

L-98-0406	Fluoroalkyl phenoxy substituted benzene
L-98-0465	Fluoric organic polymer
L-98-0467	Fluoric organic polymer
L-98-0479	Fluoroalkyl substituted benzene
L-98-0501	Fluoric organic compound
L-98-0537	Fluoroalkyl diaminobenzene
L-99-0042	Fluorinated compound
L-99-0063	Fluorinated acid derivative
L-99-0087	Fluoroalkyl substituted siloxanes
L-99-0091	Fluorinated acrylic ester copolymer
L-99-0159	Fluoropolyether derivative
L-99-0199	Fluorinated polymer
L-99-0202	Fluorinated dicarboxylic acid derivative
L-99-0212	Fluoropolyether derivative
L-99-0254	Polyfluorocarboxylic acid ammonium salt
L-99-0257	Fluoroalkyl substituted siloxanes and silicones
L-99-0261	Fluoroalkyl substituted siloxanes and silicones
L-99-0262	Fluorine-containing organopolysiloxane
L-99-0263	Polyfluoroalkylether
L-99-0264	Polyfluoroalkylether
L-99-0265	Substituted perfluoroalkyl ether
L-99-0266	Fluoroalkyl substituted siloxanes and silicones
L-99-0267	Polyfluoroalkylether
L-99-0268	Fluoroalkyl substituted siloxanes
L-99-0284	Perfluoropolyether derivative
L-99-0289	Polyfluorocarboxylic acid ammonium salt
L-99-0339	Fluoroolefin copolymer
L-99-0346	Perfluoropolyether derivative
L-99-0393	Fluorinated synthetic rubber
L-99-0394	Fluorinated polymer
L-99-0415	Fluoropoly ether derivative
L-99-0416	Fluoropoly ether derivative
L-99-0417	Fluoropoly ether derivative
L-99-0440	Fluorinated surfactant

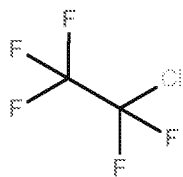
(e) Structural diagram examples, with respective CASRNs.

1. Perfluorocarbon



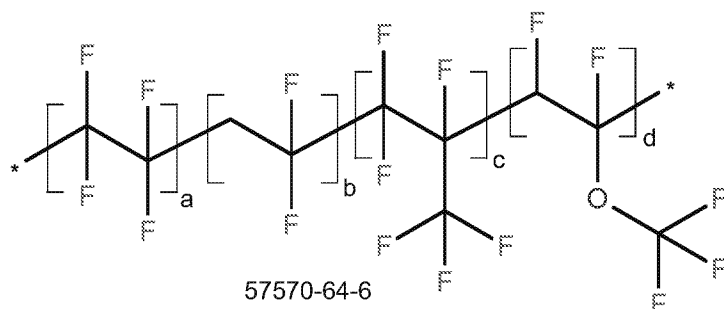
355-25-9

2. Halo Fluorocarbon (R, R' and/or R'' = halogen which is not fluorine)



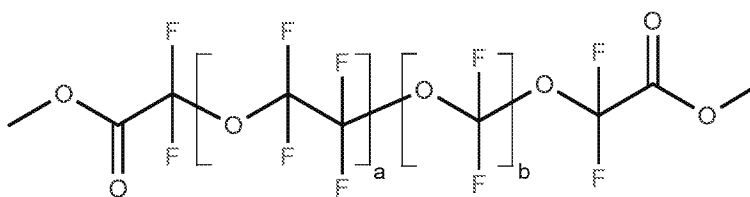
76-15-3

3. Fluoro polymer (for example, polymers made from tetrafluoroethene (C_2F_4), hexafluoropropene (C_3F_6) and/or halotrifluoroethene ($C_2F_3\text{halo}$))

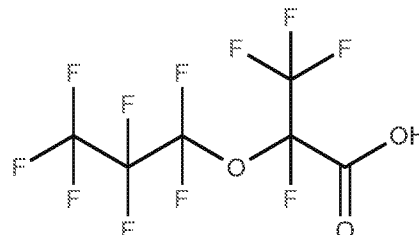


57570-64-6

4. Perfluoro/polyfluoro ether

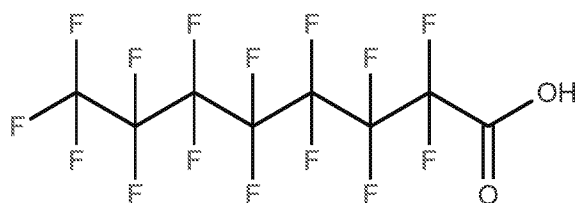


161075-12-3

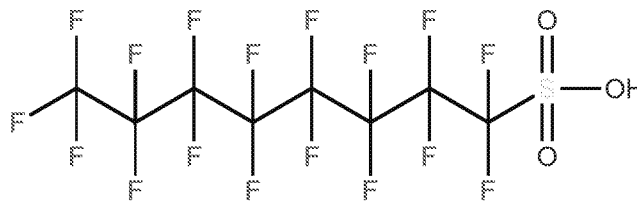


13252-13-6

5. Perfluoroalkyl-R (R = O, N, P, C (not CF_2), S, Si, H, or metal)

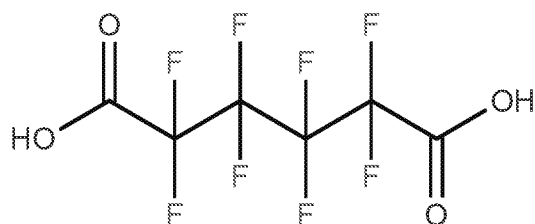


335-67-1

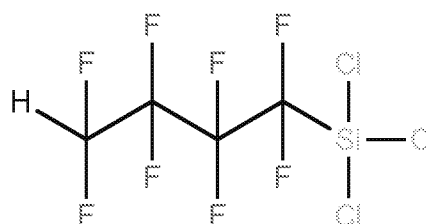


1763-23-1

6. R-Perfluoroalkyl-R (R = O, N, P, C (not CF_2), S, Si, H, or metal)



336-08-3



375-63-3

§ 705.10 Persons who must report.

Persons who have manufactured a chemical substance identified in § 705.5 at any period from January 1, 2011 to the effective date of this rule.

§ 705.15 What information to report.

For the one-time submission, persons identified in § 705.10 of this part must report to EPA, for each site of each of the chemical substances identified in § 705.5, the following information to the extent known to or reasonably ascertainable by them. In the event that actual data is not known to or reasonably ascertainable by the submitter, then reasonable estimates may be submitted:

(a) *Company and plant site information.* The following currently correct company and plant site information must be reported for each site at which a reportable chemical substance is manufactured (see §711.3 for the “site” for importers):

(1) The highest-level U.S. parent company name, address, and Dun and Bradstreet D-U-N-S® (D&B) number. A submitter under this part must obtain a D&B number for the U.S. parent company if none exists.

(2) The name of a person who will serve as Authorized Official for the submitter company, and who will be able to sign the certification statement as described in paragraph (i) of this section, the Authorized Official’s full mailing address, telephone number, and e-mail address.

(3) The name of a person who will serve as technical contact for the submitter company, and who will be able to answer questions about the information submitted by the company to EPA, the contact person's full mailing address, telephone number, and e-mail address.

(4) The name, full street address, and six-digit North American Industry Classification System (NAICS) code(s) of the site. A submitter under this part must include the appropriate D&B number for each plant site reported, and the county or parish (or other jurisdictional indicator) in which the plant site is located. A submitter under this part must obtain a D&B number for the site reported if none exists. A submitter under this part must also provide other site identification numbers, including the Facility Registry Service (FRS) identification number, if they exist.

(b) *Chemical-specific information.* The following chemical-specific information must be reported for each PFAS manufactured for each year since January 1, 2011:

(1) The common or trade name, the chemical identity, and the representative molecular structure of each PFAS for which such a report is required.

(i) The specific, currently correct CA Index name as used to list the chemical substance on the TSCA Inventory and the correct corresponding CASRN for each reportable PFAS at each site. Submitters who wish to report chemical substances listed on the confidential portion of the TSCA Inventory will need to report the chemical substance using a TSCA Accession Number. If a submitter has a low-volume exemption (LVE) case number for the chemical substance, that number may also be used if a CASRN is not known to or reasonably ascertainable by the submitter.

(ii) In addition to reporting the number itself, submitters must specify the type of number they are reporting by selecting from among the codes in Table 1 of this paragraph.

Table 1—Codes to Specify Type of Chemical Identifying Number

Code	Number type
A	TSCA Accession Number.
C	Chemical Abstracts Service Registry Number (CASRN).
L	Low-volume exemption (LVE) Case Number.

(2) The physical form(s) of the PFAS as it is sent off-site from each site. If the PFAS is site-limited, you must report the physical form(s) of the PFAS at the time it is reacted on-site to produce a different chemical substance. For each PFAS at each site, the submitter must report as many physical forms as applicable from among the physical forms listed in this unit:

- (i) Dry powder.
- (ii) Pellets or large crystals.
- (iii) Water- or solvent-wet solid.
- (iv) Other solid.
- (v) Gas or vapor.
- (vi) Liquid.

(c) Categories of use. For each year since January 1, 2011, report the following information on categories or proposed categories of use of each PFAS manufactured.

(1) *Industrial processing and use information.* A designation indicating the type of industrial processing or use operation(s) at each site that receives a PFAS from the submitter site directly or indirectly (whether the recipient site(s) are controlled by the submitter site or not). For each PFAS, report the letters which correspond to the appropriate processing or use operation(s) listed in Table 2. A particular designation may need to be reported more than once, to the extent that a submitter reports more than one sector that applies to a given designation under this paragraph.

Table 2—Codes for Reporting Type of Industrial Processing or Use Operation

Designation	Operation
-------------	-----------

PC	Processing as a reactant.
PF	Processing—incorporation into formulation, mixture, or reaction product.
PA	Processing—incorporation into article.
PK	Processing—repackaging.
U	Use—non-incorporative activities.

(2) A code indicating the sector(s) that best describe the industrial activities associated with each industrial processing or use operation reported under this section. For each chemical substance, report the code that corresponds to the appropriate sector(s) listed in Table 3. A particular sector code may need to be reported more than once, to the extent that a submitter reports more than one function code that applies to a given sector code under this paragraph.

Table 3—Codes for Reporting Industrial Sectors

Code	Sector description
IS1	Agriculture, forestry, fishing, and hunting.
IS2	Oil and gas drilling, extraction, and support activities.
IS3	Mining (except oil and gas) and support activities.
IS4	Utilities.
IS5	Construction.
IS6	Food, beverage, and tobacco product manufacturing.
IS7	Textiles, apparel, and leather manufacturing.
IS8	Wood product manufacturing.
IS9	Paper manufacturing.
IS10	Printing and related support activities.
IS11	Petroleum refineries.
IS12	Asphalt paving, roofing, and coating materials manufacturing.
IS13	Petroleum lubricating oil and grease manufacturing.
IS14	All other petroleum and coal products manufacturing.
IS15	Petrochemical manufacturing.
IS16	Industrial gas manufacturing.
IS17	Synthetic dye and pigment manufacturing.
IS18	Carbon black manufacturing.
IS19	All other basic inorganic chemical manufacturing.
IS20	Cyclic crude and intermediate manufacturing.
IS21	All other basic organic chemical manufacturing.
IS22	Plastics material and resin manufacturing.
IS23	Synthetic rubber manufacturing.
IS24	Organic fiber manufacturing.
IS25	Pesticide, fertilizer, and other agricultural chemical manufacturing.
IS26	Pharmaceutical and medicine manufacturing.
IS27	Paint and coating manufacturing.

IS28	Adhesive manufacturing.
IS29	Soap, cleaning compound, and toilet preparation manufacturing.
IS30	Printing ink manufacturing.
IS31	Explosives manufacturing.
IS32	Custom compounding of purchased resins.
IS33	Photographic film, paper, plate, and chemical manufacturing.
IS34	All other chemical product and preparation manufacturing.
IS35	Plastics product manufacturing.
IS36	Rubber product manufacturing.
IS37	Non-metallic mineral product manufacturing (includes cement, clay, concrete, glass, gypsum, lime, and other non-metallic mineral product manufacturing).
IS38	Primary metal manufacturing.
IS39	Fabricated metal product manufacturing.
IS40	Machinery manufacturing.
IS41	Computer and electronic product manufacturing.
IS42	Electrical equipment, appliance, and component manufacturing.
IS43	Transportation equipment manufacturing.
IS44	Furniture and related product manufacturing.
IS45	Miscellaneous manufacturing.
IS46	Wholesale and retail trade.
IS47	Services.
IS48	Other (requires additional information).

(3) For each sector reported under paragraph (c)(2) of this section, the applicable code(s) from Table 4 must be selected to designate the function category(ies) that best represents the specific manner in which the chemical substance is used.

Table 4—Codes for Reporting Function Categories

Code	Category
F001	Abrasives
F002	Etching agent
F003	Adhesion/cohesion promoter
F004	Binder
F005	Flux agent
F006	Sealant (barrier)
F007	Absorbent
F008	Adsorbent
F009	Dehydrating agent (desiccant)
F010	Drier
F011	Humectant
F012	Soil amendments (fertilizers)
F013	Anti-adhesive/cohesive
F014	Dusting agent

F015	Bleaching agent
F016	Brightener
F017	Anti-scaling agent
F018	Corrosion inhibitor
F019	Dye
F020	Fixing agent (mordant)
F021	Hardener
F022	Filler
F023	Anti-static agent
F024	Softener and conditioner
F025	Swelling agent
F026	Tanning agents not otherwise specified
F027	Waterproofing agent
F028	Wrinkle resisting agent
F029	Flame retardant
F030	Fuel agents
F031	Fuel
F032	Heat transferring agent
F033	Hydraulic fluids
F034	Insulators
F035	Refrigerants
F036	Anti-freeze agent
F037	Intermediate
F038	Monomers
F039	Ion exchange agent
F040	Anti-slip agent
F041	Lubricating agent
F042	Deodorizer
F043	Fragrance
F044	Oxidizing agent
F045	Reducing agent
F046	Photosensitive agent
F047	Photosensitizers
F048	Semiconductor and photovoltaic agent
F049	UV stabilizer
F050	Opacifer
F051	Pigment
F052	Plasticizer
F053	Plating agent
F054	Catalyst
F055	Chain transfer agent
F056	Chemical reaction regulator
F057	Crystal growth modifiers (nucleating agents)
F058	Polymerization promoter
F059	Terminator/Blocker

F060	Processing aids, specific to petroleum production
F061	Antioxidant
F062	Chelating agent
F063	Defoamer
F064	pH regulating agent
F065	Processing aids not otherwise specified
F066	Energy Releasers (explosives, motive propellant)
F067	Foamant
F068	Propellants, non-motive (blowing agents)
F069	Cloud-point depressant
F070	Flocculating agent
F071	Flotation agent
F072	Solids separation (precipitating) agent, not otherwise specified
F073	Cleaning agent
F074	Diluent
F075	Solvent
F076	Surfactant (surface active agent)
F077	Emulsifier
F078	Thickening agent
F079	Viscosity modifiers
F080	Laboratory chemicals
F081	Dispersing agent
F082	Freeze-thaw additive
F083	Surface modifier
F084	Wetting agent (non-aqueous)
F085	Aerating and deaerating agents
F086	Explosion inhibitor
F087	Fire extinguishing agent
F088	Flavoring and nutrient
F089	Anti-redeposition agent
F090	Anti-stain agent
F091	Anti-streaking agent
F092	Conductive agent
F093	Incandescent agent
F094	Magnetic element
F095	Anti-condensation agent
F096	Coalescing agent
F097	Film former
F098	Demulsifier
F099	Stabilizing agent
F100	Alloys
F101	Density modifier
F102	Elasticizer
F103	Flow promoter
F104	Sizing agent

F105	Solubility enhancer
F106	Vapor pressure modifiers
F107	Embalming agent
F108	Heat stabilizer
F109	Preservative
F110	Anti-caking agent
F111	Deflocculant
F112	Dust suppressant
F113	Impregnation agent
F114	Leaching agent
F115	Tracer
F116	X-ray absorber
F999	Other

(4) *Consumer and commercial use information.* Using the applicable codes listed in Table 5 to paragraph (c)(4), submitters must designate the consumer and commercial product category(ies) that best describe the consumer and commercial products in which each PFAS is used (whether the recipient site(s) are controlled by the submitter site or not). If more than 10 codes apply to a PFAS, submitters need only report the 10 codes for PFAS that cumulatively represent the largest percentage of the submitter's production volume for that chemical, measured by weight. If none of the listed consumer and commercial product categories accurately describes the consumer and commercial products in which each PFAS is used, the category “Other” may be used, and must include a description of the use.

Table 5—Codes for Reporting Consumer and Commercial Product Categories

Code	Category
Chemical Substances in Furnishing, Cleaning, Treatment Care Products	
CC101	Construction and building materials covering large surface areas including stone, plaster, cement, glass and ceramic articles; fabrics, textiles, and apparel
CC102	Furniture & furnishings including plastic articles (soft); leather articles
CC103	Furniture & furnishings including stone, plaster, cement, glass and ceramic articles; metal articles; or rubber articles
CC104	Leather conditioner
CC105	Leather tanning, dye, finishing, impregnation and care products
CC106	Textile (fabric) dyes
CC107	Textile finishing and impregnating/surface treatment products
CC108	All-purpose foam spray cleaner
CC109	All-purpose liquid cleaner/polish
CC110	All-purpose liquid spray cleaner

CC111	All-purpose waxes and polishes
CC112	Appliance cleaners
CC113	Drain and toilet cleaners (liquid)
CC114	Powder cleaners (floors)
CC115	Powder cleaners (porcelain)
CC116	Dishwashing detergent (liquid/gel)
CC117	Dishwashing detergent (unit dose/granule)
CC118	Dishwashing detergent liquid (hand-wash)
CC119	Dry cleaning and associated products
CC120	Fabric enhancers
CC121	Laundry detergent (unit-dose/granule)
CC122	Laundry detergent (liquid)
CC123	Stain removers
CC124	Ion exchangers
CC125	Liquid water treatment products
CC126	Solid/Powder water treatment products
CC127	Liquid body soap
CC128	Liquid hand soap
CC129	Solid bar soap
CC130	Air fresheners for motor vehicles
CC131	Continuous action air fresheners
CC132	Instant action air fresheners
CC133	Anti-static spray
CC134	Apparel finishing, and impregnating/surface treatment products
CC135	Insect repellent treatment
CC136	Pre-market waxes, stains, and polishes applied to footwear
CC137	Post-market waxes, and polishes applied to footwear (shoe polish)
CC138	Waterproofing and water-resistant sprays
Chemical Substances in Construction, Paint, Electrical, and Metal Products	
CC201	Fillers and putties
CC202	Hot-melt adhesives
CC203	One-component caulks
CC204	Solder
CC205	Single-component glues and adhesives
CC206	Two-component caulks
CC207	Two-component glues and adhesives
CC208	Adhesive/Caulk removers
CC209	Aerosol spray paints
CC210	Lacquers, stains, varnishes and floor finishes
CC211	Paint strippers/removers
CC212	Powder coatings
CC213	Radiation curable coatings
CC214	Solvent-based paint
CC215	Thinners
CC216	Water-based paint
CC217	Construction and building materials covering large surface areas, including wood articles
CC218	Construction and building materials covering large surface areas, including paper articles; metal articles; stone, plaster, cement, glass and ceramic articles
CC219	Machinery, mechanical appliances, electrical/electronic articles

CC220	Other machinery, mechanical appliances, electronic/electronic articles
CC221	Construction and building materials covering large surface areas, including metal articles
CC222	Electrical batteries and accumulators
Chemical Substances in Packaging, Paper, Plastic, Toys, Hobby Products	
CC990	Non-TSCA use
CC301	Packaging (excluding food packaging), including paper articles
CC302	Other articles with routine direct contact during normal use, including paper articles
CC303	Packaging (excluding food packaging), including rubber articles; plastic articles (hard); plastic articles (soft)
CC304	Other articles with routine direct contact during normal use including rubber articles; plastic articles (hard)
CC305	Toys intended for children's use (and child dedicated articles), including fabrics, textiles, and apparel; or plastic articles (hard)
CC306	Adhesives applied at elevated temperatures
CC307	Cement/concrete
CC308	Crafting glue
CC309	Crafting paint (applied to body)
CC310	Crafting paint (applied to craft)
CC311	Fixatives and finishing spray coatings
CC312	Modelling clay
CC313	Correction fluid/tape
CC314	Inks in writing equipment (liquid)
CC315	Inks used for stamps
CC316	Toner/Printer cartridge
CC317	Liquid photographic processing solutions
Chemical Substances in Automotive, Fuel, Agriculture, Outdoor Use Products	
CC401	Exterior car washes and soaps
CC402	Exterior car waxes, polishes, and coatings
CC403	Interior car care
CC404	Touch up auto paint
CC405	Degreasers
CC406	Liquid lubricants and greases
CC407	Paste lubricants and greases
CC408	Spray lubricants and greases
CC409	Anti-freeze liquids
CC410	De-icing liquids
CC411	De-icing solids
CC412	Lock de-icers/releasers
CC413	Cooking and heating fuels
CC414	Fuel additives
CC415	Vehicular or appliance fuels
CC416	Explosive materials
CC417	Agricultural non-pesticidal products
CC418	Lawn and garden care products
Chemical Substances in Products not Described by Other Codes	
CC980	Other (specify)
CC990	Non-TSCA use

(5) For each consumer and commercial product category reported under paragraph (c)(4)

of this section, the applicable code(s) described in Table 4 under paragraph (c)(3) of this section must be selected to designate the function category(ies) that best represents the specific manner in which the PFAS is used.

(6) Submitters must indicate, for each consumer and commercial product category reported under paragraph (c)(4) of this section, whether the use is a consumer or a commercial use, or both.

(7) Submitters must determine, within each consumer and commercial product category reported under paragraph (c)(4) of this section, whether any amount of each reportable chemical substance manufactured (including imported) by the submitter is present in (for example, a plasticizer chemical substance used to make pacifiers) or on (for example, as a component in the paint on a toy) any consumer products intended for use by children age 14 or younger, regardless of the concentration of the chemical substance remaining in or on the product. Submitters must select from the following options: The chemical substance is used in or on any consumer products intended for use by children; the chemical substance is not used in or on any consumer products intended for use by children; or information as to whether the chemical substance is used in or on any consumer products intended for use by children is not known to or reasonably ascertainable by the submitter.

(8) For each year where the PFAS is used in consumer or commercial products, the estimated typical maximum concentration, measured by weight, of the chemical substance in each consumer and commercial product category reported under paragraph (c)(4) of this section. For each PFAS in each commercial and consumer product category reported under paragraph (c)(4) of this section, submitters must select from among the ranges of concentrations listed in Table 6 of this paragraph and report the corresponding code (i.e., M1 through M5):

Table 6—Codes for Reporting Maximum Concentration of Chemical Substance

Code	Concentration range (% weight)
M1	Less than 1% by weight.
M2	At least 1 but less than 30% by weight.
M3	At least 30 but less than 60% by weight.
M4	At least 60 but less than 90% by weight.
M5	At least 90% by weight.

(d) For each year since January 1, 2011, the total amounts manufactured or processed of each PFAS, including the amounts manufactured or processed in each calendar year for each category of use as described in paragraph (c) of this section.

(1) For each year the PFAS was manufactured, the total annual volume (in pounds) of each PFAS domestically manufactured or imported at each site. The total annual domestically manufactured volume (not including imported volume) and the total annual imported volume must be separately reported. These amounts must be reported to two significant figures of accuracy.

(2) A designation indicating, for each PFAS at each site, whether the imported PFAS is physically present at the reporting site.

(3) The volume directly exported of each PFAS domestically manufactured or imported at each site. These amounts must be reported to two significant figures of accuracy.

(4) The estimated percentage, rounded off to the closest 10 percent, of total production volume of the reportable chemical substance associated with each combination of industrial processing or use operation, sector, and function category as reported in paragraph (c) of this section. Where a particular combination of industrial processing or use operation, sector, and function category accounts for less than 5 percent of the submitter's site's total production volume of a reportable chemical substance, the percentage must not be rounded off to 0 percent. Instead, in such a case, submitters must report the percentage, rounded off to the closest 1

percent, of the submitter's site's total production volume of the reportable chemical substance associated with the particular combination of industrial processing or use operation, sector, and function category.

(5) The estimated percentage, rounded off to the closest 10 percent, of the submitter's site's total production volume of the PFAS associated with each consumer and commercial product category as reported in paragraph (c)(4) of this section. Where a particular consumer and commercial product category accounts for less than 5 percent of the total production volume of a reportable chemical substance, the percentage must not be rounded off to 0 percent. Instead, in such a case, submitters must report the percentage, rounded off to the closest 1 percent, of the submitter's site's total production volume of the reportable chemical substance associated with the particular consumer and commercial product category.

(6) The estimated maximum amount (in pounds) to be manufactured or imported during the first year of production within the covered reporting period (*i.e.*, since January 1, 2011), and the estimated maximum amount (in pounds) to be manufactured or imported during any 12-month period during the first three years of production within the covered reporting period.

(7) An indication of whether the PFAS was site-limited.

(8) The estimated maximum amount (in pounds) of the PFAS on site at any point in time since January 1, 2011. This amount is not limited to quantities being actively manufactured or used, and includes quantities stored.

(9) The total volume (in pounds) of each PFAS recycled on-site since January 1, 2011.

(e) A description of the byproducts resulting from the manufacture, processing, use, or disposal of each PFAS since January 1, 2011.

(1) For each byproduct produced from the manufacture, processing, use, or disposal of a

PFAS, the submitter will identify the byproduct by its specific, currently correct CA Index name as used to list the chemical substance on the TSCA Inventory and the correct corresponding CASRN. A submitter under this part may use an EPA-designated TSCA Accession Number for a chemical substance in lieu of a CASRN when a CASRN is not known to or reasonably ascertainable by the submitter. Submitters who wish to report chemical substances listed on the confidential portion of the TSCA Inventory will need to report the chemical substance using a TSCA Accession Number.

(i) In addition to reporting the number itself, submitters must specify the type of number they are reporting by selecting from among the codes in Table 1 of paragraph (b)(1)(i).

(ii) If the specific identity of the byproduct is unknown to the submitter, the submitter may provide a description of the chemical substance.

(iii) An indication of which specific PFAS activity(ies) (*i.e.*, manufacture, process, use, or disposal) manufactured the byproduct.

(2) An indication of whether the byproduct is released to the environment, and if so, the environmental medium (a) to which it is released (*i.e.*, air, water, land).

(3) For each year, the byproduct volume (in pounds) released to the environment.

(f) All existing environmental and health effects information of such substance or mixture. The scope of this information shall not be limited to studies conducted or published since 2011.

(1) For each published study report, the submitter shall complete an Organization for Economic Cooperation and Development (OECD) Harmonized Templates for Reporting Chemical Test Summaries, and submit the accompanying study reports and supporting information.

(2) Submitters shall also provide any additional human health data not in study reports, including but not limited to any preliminary studies, informal test results in workers, or inhalation studies.

(g) The number of individuals exposed to PFAS in their places of employment and the duration of such exposure for each year since January 1, 2011.

(1) A narrative description of worker activities involving the PFAS at the manufacturing site, such as bag dumping, sampling, cleaning, or unloading drums.

(2) For each worker activity in this paragraph, indicate the number of workers reasonably likely to be exposed. The submitter must select from among the worker ranges listed in Table 8 of paragraph (g)(1)(i) of this section and report the corresponding code (*i.e.*, W1 through W8).

Table 7—Codes for Reporting Number of Workers Reasonably Likely To Be Exposed

Code	Range
W1	Fewer than 10 workers.
W2	At least 10 but fewer than 25 workers.
W3	At least 25 but fewer than 50 workers.
W4	At least 50 but fewer than 100 workers.
W5	At least 100 but fewer than 500 workers.
W6	At least 500 but fewer than 1,000 workers.
W7	At least 1,000 but fewer than 10,000 workers.
W8	At least 10,000 workers.

(3) For each PFAS, the maximum duration of exposure for any worker at the manufacturing site, in hours per day and days per year.

(4) For each combination of industrial processing or use operation, sector, and function category identified in paragraph (c) of this section, the submitter must estimate the number of workers reasonably likely to be exposed to each PFAS. For each combination associated with each chemical substance, the submitter must select from among the worker ranges listed in Table 8 under paragraph (g)(1)(i) of this section and report the corresponding code (*i.e.*, W1 through W8).

(5) For each PFAS, the maximum duration of exposure for any worker for each combination of industrial processing or use operation, sector, and function category, in hours per day and days per year.

(6) Where the PFAS is used in a commercial product, the submitter must estimate the number of commercial workers reasonably likely to be exposed to each reportable chemical substance. For each commercial use associated with each substance, the submitter must select from among the worker ranges listed in Table 8 under paragraph (g)(1)(i) of this section and report the corresponding code (i.e., W1 through W8).

(7) For each PFAS, the maximum duration of exposure for any worker for each commercial use, in hours per day and days per year.

(h) During the years in which the PFAS was manufactured, the manners or methods of its disposal, and any changes to the disposal methods or processes since January 1, 2011.

(1) Description of disposal processes or methods, using the appropriate codes in Table 9 of paragraph (h)(1) in this section, and additional descriptions as needed.

Table 8—Codes for Reporting Disposal Methods

Code	Disposal Method
D1	On-site land disposal: RCRA Class C landfill (hazardous)
D2	On-site land disposal: other landfill
D3	Other on-site land disposal
D4	On-site underground injection (UIC)
D5	Off-site land disposal: RCRA Class C landfill (hazardous)
D6	Off-site land disposal: other landfill
D7	On-site incineration
D8	Off-site incineration
D9	Publicly owned treatment works (POTW)
D10	Other off-site waste transfer
D11	Release to surface water
D12	Release to air (stack emissions)
D13	Release to air (fugitive emissions)
D99	Other

(2) Describe any changes to the disposal process(es) or method(s) indicated in paragraph

(h)(1) for any PFAS manufactured since 2011.

(3) Indicate total volume released to each environmental medium since 2011 for each PFAS.

(4) Indicate total volume incinerated on-site since 2011 for each PFAS. If incineration occurred, indicate the temperature at which the PFAS was incinerated.

(i) *Certification statement signed and dated by an authorized official of the submitter company.* The authorized official must certify that the submitted information has been completed in compliance with the requirements of this part, such as all information known or reasonably ascertainable is submitted, and that the confidentiality claims made in this report are true and correct. The certification must be signed and dated by the authorized official for the submitter company, and provide that person's name, official title, and e-mail address.

§ 705.20 When to report.

All information reported to EPA in response to the requirements of this part must be submitted during the applicable submission period. The submission period shall begin six months following the effective date of this rule and last for six months.

§ 705.22 Duplicative reporting.

(a) If a person identified in § 705.10 has already reported certain information in § 705.15 to EPA pursuant to TSCA section 8(a), then duplicative reporting of that information is not required of the years for which the information has already been reported. Any person covered in this part may notify EPA through the electronic reporting system in § 705.35 that such information has already been submitted. This information may include:

- (1) Physical state of the chemical or mixture, pursuant to §711.15(b)(3)(C)(ix);
- (2) Industrial processing and use type, sector(s), functional category(ies), and percent of

production volume for each use, pursuant to §711.15(b)(4)(i)(A)—(D);

(3) Consumer and/or commercial indicator, product category(ies), functional category(ies), percent of production volume for each use, indicator for use in products intended for children, and maximum concentration in the product, pursuant to §711.15(b)(4)(ii)(A)—(F);

(4) Number of workers reasonably likely to be exposed for each combination of industrial processing or use operation, sector, and function, pursuant to §711.15(b)(4)(i)(F), and the number of commercial workers reasonably likely to be exposed when the substance is used in a commercial product, pursuant to §711.15(b)(4)(ii)(G).

(b) Any person covered in this part must report all information to EPA in § 705.15 for each year since January 1, 2011. If a person has already reported any of the data elements identified in paragraph (a) of this section, but not for all years since 2011, then that person must submit the required information for the intervening years.

§ 705.25 Recordkeeping requirements.

Each person who is subject to the reporting requirements of this part must retain records that document any information reported to EPA. Relevant records must be retained for a period of 5 years beginning on the last day of the submission period.

§ 705.30 Confidentiality claims.

(a) *Making confidentiality claims*—(1) *Generally*. Any person submitting information under this part may assert a confidentiality claim for that information, except for information described in paragraph (a)(2). Any such confidentiality claims must be asserted at the time the information is submitted. Instructions for asserting confidentiality claims are provided in the document identified in § 705.35. Information claimed as confidential in accordance with this section will be treated and disclosed in accordance with the procedures in 40 CFR part 2 and

section 14 of TSCA.

(2) *Exceptions.* Confidentiality claims cannot be asserted:

- (i) For chemical identities listed on the public portion of the TSCA Inventory;
- (ii) For processing and use data elements required by § 705.15(c)(1)–(7); or
- (iii) When a response is left blank or designated as “not known or reasonably ascertainable.”

(3) *Health and environmental effects information.* Any person submitting health and effects information under this part may only assert a confidentiality claim for information that “discloses processes used in the manufacturing or processing of a chemical substance or mixture or, in the case of a mixture, the release of data disclosing the portion of the mixture comprised by any of the chemical substances in the mixture.” If any such information is claimed as confidential, a person who submits the information must also provide EPA with a sanitized copy for public release, removing only that information that is claimed as confidential.

(b) Unless exempted, *all confidentiality claims require substantiation at time of submission and must be signed and dated by an authorized official.* Confidentiality claims for the following data elements are exempt from this substantiation requirement:

- (1) Production volume information required pursuant to § 705.15(d)(1), (5), and (6).

(c) *Marking information claimed as confidential in confidentiality substantiation documentation.* If any of the information contained in the answers to the questions listed in paragraph (e) of this section is asserted to contain information that itself is considered to be confidential, you must clearly identify the information that is claimed confidential.

(d) *Certification statement for claims.* An authorized official representing a person asserting a claim of confidentiality must certify that the submission complies with the

requirements of this part by signing and dating the following certification statement:

“I certify that all claims for confidentiality asserted with this submission are true and correct, and all information submitted herein to substantiate such claims is true and correct. Any knowing and willful misrepresentation is subject to criminal penalty pursuant to 18 U.S.C. 1001. I further certify that: (1) I have taken reasonable measures to protect the confidentiality of the information; (2) I have determined that the information is not required to be disclosed or otherwise made available to the public under any other Federal law; (3) I have a reasonable basis to conclude that disclosure of the information is likely to cause substantial harm to the competitive position of my company; and (4) I have a reasonable basis to believe that the information is not readily discoverable through reverse engineering.”

(c) Substantiation requirements for *all types of confidentiality claims*. For each data element that is claimed as confidential, you must submit with your report detailed written answers to the following questions:

(1) Will disclosure of the information claimed as confidential likely cause substantial harm to your business's competitive position? If you answered yes, describe the substantial harmful effects that would likely result to your competitive position if the information is disclosed, including but not limited to how a competitor could use such information, and the causal relationship between the disclosure and the harmful effects.

(2) Has your business taken precautions to protect the confidentiality of the disclosed information? If yes, please explain and identify the specific measures, including but not limited to internal controls, that your business has taken to protect the information claimed as confidential.

(3)(i) Is any of the information claimed as confidential required to be publicly disclosed

under any other Federal law? If yes, please explain.

(ii) Does any of the information claimed as confidential otherwise appear in any public documents, including (but not limited to) safety data sheets; advertising or promotional material; professional or trade publications; state, local, or Federal agency files; or any other media or publications available to the general public? If yes, please explain why the information should be treated as confidential.

(iii) Does any of the information claimed as confidential appear in one or more patents or patent applications? If yes, please provide the associated patent number or patent application number (or numbers) and explain why the information should be treated as confidential.

(4) Does any of the information that you are claiming as confidential constitute a trade secret? If yes, please explain how the information you are claiming as confidential constitutes a trade secret.

(5) Is the claim of confidentiality intended to last less than 10 years (see TSCA section 14(e)(1)(B))? If yes, please indicate the number of years (between 1-10 years) or the specific date after which the claim is withdrawn.

(6) Has EPA, another federal agency, or court made any confidentiality determination regarding information associated with this chemical substance? If yes, please provide the circumstances associated with the prior determination, whether the information was found to be entitled to confidential treatment, the entity that made the decision, and the date of the determination.

(f) *Additional requirements for specific chemical identity.* A person may assert a claim of confidentiality for the specific chemical identity of a chemical substance as described in §711.15(b) of this part only if the identity of that chemical substance is treated as confidential in

the Master Inventory File as of the time the report is submitted for that chemical substance.

Generic chemical identities and accession numbers may not be claimed as confidential. To assert a claim of confidentiality for the identity of a reportable chemical substance, you must submit with the report detailed written answers to the questions from paragraph (b) of this section and to the following questions.

(1) Is this chemical substance publicly known (including by your competitors) to be in U.S. commerce? If yes, please explain why the specific chemical identity should still be afforded confidential status (*e.g.*, the chemical substance is publicly known only as being distributed in commerce for research and development purposes, but no other information about the current commercial distribution of the chemical substance in the United States is publicly available). If no, please complete the certification statement:

I certify that on the date referenced, I searched the internet for the chemical substance identity (*i.e.*, by both chemical substance name and CASRN). I did not find a reference to this chemical substance that would indicate that the chemical is being manufactured or imported by anyone for a commercial purpose in the United States. [provide date].

(2) Does this particular chemical substance leave the site of manufacture (including import) in any form, *e.g.*, as a product, effluent, emission? If yes, please explain what measures have been taken to guard against the discovery of its identity.

(3) If the chemical substance leaves the site in a form that is available to the public or your competitors, can the chemical identity be readily discovered by analysis of the substance (*e.g.*, product, effluent, emission), in light of existing technologies and any costs, difficulties, or limitations associated with such technologies? Please explain why or why not.

(4) Would disclosure of the specific chemical name release confidential process

information? If yes, please explain.

(g) *No claim of confidentiality.* Information not claimed as confidential in accordance with the requirements of this section may be made public without further notice to the submitter.

§ 705.35 Electronic reporting.

You must use CDX to complete and submit the reporting form required under this part. Submissions may only be made as set forth in this paragraph. Submissions must be sent electronically to EPA via CDX. The information submitted and all attachments (unless the attachment appears in scientific literature) must be in English. All information must be true and correct. Access the PFAS reporting tool and instructions, as follows:

(1) By website. Access the PFAS reporting tool via the CDX homepage at <https://cdx.epa.gov/> and follow the appropriate links.

(2) By phone or e-mail. Contact the EPA TSCA Hotline at (202) 554-1404 or *TSCA-Hotline@epa.gov*.

Message

From: Smith, Peterj [Smith.Peterj@epa.gov]
Sent: 6/15/2021 4:24:03 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Callahan, Leigh [Callahan.Leigh@epa.gov]; Rice, Cody [Rice.Cody@epa.gov]; Sleasman, Katherine [Sleasman.Katherine@epa.gov]; Siu, Carolyn [siu.carolyn@epa.gov]
Subject: TSCA 8a7 PFAS Data Call NPRM: EO 12866 Documentation Entry for the Docket
Attachments: 2021-06-07_PFAS-TSCA 8a_NPRM_EO12866-Documentation_1-Cover.pdf; 2021-03-01_PFAS-TSCA 8a_NPRM_EO12866-Documentation_2-AsSubmitted_DraftRule.pdf; 2021-03-01_PFAS-TSCA 8a_NPRM_EO12866-Documentation_2-AsSubmitted_DraftEA.pdf; 2021-03-01_PFAS-TSCA 8a_NPRM_EO12866-Documentation_2-AsSubmitted_DraftICR.pdf; 2021-06-07_PFAS-TSCA 8a_NPRM_EO12866-Documentation_3-Redlined_DraftRule.pdf; 2021-06-07_PFAS-TSCA 8a_NPRM_EO12866-Documentation_3-Redlined_DraftEA.pdf

Importance: High

Hi Steph,

Here is what you should use for the docket entry related to the EO 12866 documentation for the final rule. The text in blue below is what you enter as part of the metadata for the field identified. Special instructions to you, rather than docket entry text, are in red.

Let's touch base ASAP if you have any questions.

Best,
Peter

Document Title - Documentation of EO 12866 Review; TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances; Proposed Rule (RIN 2070-AK67)

Document Abstract - This action was submitted to the Office of Management and Budget (OMB) for review under Executive Order (EO) 12866, entitled *Regulatory Planning and Review* (58 FR 51735, October 4, 1993). According to section 6(a)(3)(E) of the EO, whenever the Agency makes publicly available a regulatory action that was reviewed under EO 12866, the Agency is also required to: (1) Make available to the public a copy of the information that was provided to OMB's Office of Information and Regulatory Affairs (OIRA) for review under the EO, i.e., the text of the draft regulatory action and, if applicable, an assessment of the potential costs and benefits; as well as additional information required for those actions that are determined to be economically significant under section 3(f) of the EO (see section 6(a)(3)(B) & (C)); (2) Identify for the public any substantive changes between the draft submitted to OMB and the action that was subsequently issued, using a method that is complete, clear and simple; and (3) Identify for the public those substantive changes made at the suggestion or recommendation of OIRA. These materials satisfy EO section 6(a)(3)(E).

Document Type - Supporting Information [If there are still sub-options, select "EO 12866 (Interagency) Review" or "Interagency Review"]

[This entry will have multiple documents, that need to be identified by the following titles. This used to be referred to as a "file-set" but now these documents may all be entered as part of this single docket entry. Either way, it is important to keep these files together, to name them as provided, and to keep them in this order!]

Main Document / "Content" - EO 12866 Documentation; Cover Form (RIN 2070-AK67; Proposed Rule)



2021-06-07_PFA...
8a_NPRM_EO12...

Sub-Document / Attachment #1 - EO 12866 Documentation; Draft Submitted to OMB – FR Document (RIN 2070-AK67; Proposed Rule)



2021-03-01_PFA...
8a_NPRM_EO12...

Sub-Document / Attachment #2 - EO 12866 Documentation; Draft Submitted to OMB – Economic Analysis (RIN 2070-AK67; Proposed Rule)



2021-03-01_PFA...
8a_NPRM_EO12...

Sub-Document / Attachment #3 - EO 12866 Documentation; Draft Submitted to OMB – Information Collection Request (RIN 2070-AK67; Proposed Rule)



2021-03-01_PFA...
8a_NPRM_EO12...

Sub-Document / Attachment #4 - EO 12866 Documentation; Changes Made During Review – FR Document (RIN 2070-AK67; Proposed Rule)



2021-06-07_PFA...
8a_NPRM_EO12...

Sub-Document / Attachment #5 - EO 12866 Documentation; Changes Made During Review – Economic Analysis (RIN 2070-AK67; Proposed Rule)



2021-06-07_PFA...
8a_NPRM_EO12...

NOTICE: *If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.*

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]
Sent: 6/21/2021 2:55:05 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: OGC Review: 8a7 Presentation for ChemWatch 6/23
Attachments: June 2021 ChemWatch Presentation_PFAS Data Call NPRM_ss.pptx

Hi Stephanie,

Just a few suggested edits. Tried to highlight any edits and used strikethroughs so you could see what I suggested.

Thanks!

Stephanie

Stephanie Schwarz
EPA Office of General Counsel
Pesticides and Toxic Substances Law Office
T: 202-564-8496
E: schwarz.stephanie@epa.gov
Pronouns: she/her/hers

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, June 21, 2021 8:36 AM
To: Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>
Subject: OGC Review: 8a7 Presentation for ChemWatch 6/23

Hi Stephanie,

We received a late ask to present on the proposed rule at ChemWatch this Wednesday. Would you mind taking a quick look at the slides? Most of the slides are repeats of the OMB presentation a few months ago, though changes include: listing the specific items for which we're soliciting comment, and listing the proposed data elements over several appendix slides (with the corresponding 8a2 subparagraph).

Just for your awareness, this presentation will be brief and will include a few Q&As, though we've made it clear to the conference organizers that I'm not going to be able to answer or address anything other than minor clarifying questions—everything else should be submitted to the docket.

Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov



TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances: Proposed Rule

U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 23, 2021

CHEMICAL WATCH PRESENTATION



Presentation Outline

- *Background
- *Overview of Proposed Rule
 - * Scope of PFAS
 - * Reporting Entities
 - * Data Elements
 - * Electronic Reporting
 - * Recordkeeping Requirements
- *Impacts of Proposed Rule
- *Projected Schedule
- **Federal Register* Notice



Background: What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals.
- PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s.
- PFAS can be found in a wide variety of consumer products (e.g., food packaging, cleaning products, paints, certain fire-fighting foam) and industrial uses (e.g., chrome plating, electronics manufacturing).
- There is evidence that exposure to PFAS can lead to adverse human health effects.
- For more information, please visit www.epa.gov/pfas.



Background: Rulemaking Authority

- *The Fiscal Year 2020 National Defense Authorization Act (NDAA) amended TSCA section 8(a) by adding section 8(a)(7).
- *TSCA section 8(a)(7) requires EPA to promulgate a rulemaking by January 1, 2023, requiring manufacturers (including importers) of a PFAS in any year since January 1, 2011, to submit a report to EPA containing information outlined in section 8(a)(2) for each year since January 1, 2011.



Overview of Proposed Rule



Scope of PFAS

•The proposed scope of PFAS for this rulemaking are substances that structurally contain the unit $R-(CF_2)_n-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons and none of the R groups (R, R' or R'') can be hydrogen.

* Any TSCA chemical substance* meeting this definition which has been manufactured in any year since January 1, 2011, is reportable.

*Under TSCA, a "chemical substance" means: any organic or inorganic substance of a particular molecular identity, including — (i) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and (ii) any element or uncombined radical. (8) Such term does not include — (i) any mixture, (ii) any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.]) when manufactured, processed, or distributed in commerce for use as a pesticide, (iii) tobacco or any tobacco product, (iv) any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.] and regulations issued under such Act), (v) any article the sale of which is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1986 [26 U.S.C. 4181] (determined without regard to any exemptions from such tax provided by section 4182 or 4221 or any other provision of such Code) and any component of such an article (limited to shot shells, cartridges, and components of shot shells and cartridges), and (vi) any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act [21 U.S.C. 321]) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device. The term "food" as used in clause (vi) of this subparagraph includes poultry and poultry products (as defined in sections 4(e) and 4(f) of the Poultry Products Inspection Act [21 U.S.C. 453(e) and (f)]), meat and meat food products (as defined in section 1(j) of the Federal Meat Inspection Act [21 U.S.C. 601(j)]), and eggs and egg products (as defined in section 4 of the Egg Products Inspection Act [21 U.S.C. 1033]).



Scope of PFAS

- ♦ EPA has identified at least 1,364 PFAS under this structural definition, including:
 - All PFAS listed as active on the February 2021 TSCA Inventory
 - All PFAS with TSCA section 5 (new chemicals) low-volume exemption claims
- ♦ To assist companies with identifying PFAS, the rule and docket supporting files will include lists of PFAS on the TSCA Inventory or submitted as new chemical low-volume exemptions, and structural diagram examples to capture any PFAS that could not be specifically listed due to CBI claims.



Reporting Entities

- *Any person who has manufactured (including imported) a PFAS meeting the structural definition at any time since January 1, 2011, is required to report
- *No reporter exemptions to in this proposed rule
 - * Unlike the small manufacturer exemption from other chemical reporting rules under TSCA section 8(a)(1), section 8(a)(7) specifically states that "each person who has manufactured a chemical substance that is a [PFAS]" shall be subject to the rule.



Data Elements

*TSCA section 8(a)(2) authorizes EPA to collect information on each PFAS regarding:

- * Chemical or mixture identity, trade name, and molecular structure
- * Categories of use
- * Quantity manufactured or processed for each category of use
- * Descriptions of byproducts resulting from the manufacture, processing, use, or disposal
- * Existing environmental and health effects information
- * Number of workers exposed and duration of exposure
- * Manner or method of disposal and any change in manner or method

*Some proposed data elements are similar to information required for the 2020 Chemical Data Reporting (CDR) cycle (e.g., production volumes, worker exposure information)

- * Key difference: this rule requires information for each year in which that PFAS was manufactured, without exemptions
- * To mitigate duplicative reporting, EPA proposes to allow submitters to indicate in the reporting tool if they have provided this information to EPA already, for that year



Electronic Reporting

- *EPA will create a new reporting tool for this rule
 - * Hosted on CDX with other chemical information systems reporting tools
- *EPA is proposing to allow reporters to indicate to EPA if they have already provided a specific data element, for that same year, to EPA under another CDX reporting program to mitigate potential duplicative reporting
- *Environmental and health effects information would be submitted in the format of OECD harmonized templates when applicable (not all data endpoints have established templates)
 - * Underlying data or relevant study reports would be uploaded as attachments
- *CBI claims and substantiations would follow requirements and procedures under TSCA section 14



Recordkeeping Requirements

- *Proposed 5-year recordkeeping period following final date of submission period
- *Rationale:
 - * Consistent with CDR rule and some other 8(a) chemical-specific reporting rules
 - * Retention requirement corresponds with statute of limitations for violations
 - * Supports EPA's future activities informed by this data call



Impacts of Proposed Rule

- ♦ 234 respondents are expected to report under this one-time data call
 - ♦ Expected respondents identified in the Chemical Data Reporting database and extrapolated to include manufacturers not in CDR database
- ♦ Estimated total industry burden and cost:
 - ♦ \$9.8 million
 - ♦ 122,104 hours (no annualized capital or operation and maintenance costs)
- ♦ Economic costs include rule familiarization, form completion, CBI claim substantiation, electronic reporting, and recordkeeping activities.
- ♦ Benefits EPA by providing information on PFAS which the Agency does not currently have



How EPA May Use These Data

• **Support implementation of TSCA**

- Informs development of potential existing chemical risk management efforts
- Informs TSCA new chemical reviews (e.g., health/environmental effects info submitted may provide read-across data for new chemical analogs)
- Informs the understanding of new analytical methods
- Informs future TSCA section 6 activities
 - Support prioritization, scoping and risk evaluations
 - Apply to criteria for TSCA high/low prioritization

• **Share with other EPA offices:** Section 9 of TSCA mandates that EPA share certain information collected under TSCA with other EPA offices.

- Supports other EPA programs (e.g., contaminated site work, solid waste disposal, drinking water management)



Projected Schedule

- **NPRM published on June ##, 2021*
- ***60-day public comment period until August ##, 2021**
- *Statutory deadline for promulgation of the rule is January 1, 2023
- *Proposed 6-month deferral of data submission period after effective date of final rule
 - * Allow EPA to finalize reporting software with required data elements
 - * Allow companies to become familiar with rule and begin data gathering
- *Proposed 6-month submission period
 - ❖ Reporting deadline will thus be one year from effective date of rule



Federal Register Notice: NPRM

- *Published in the *Federal Register* on June ##, 2021 [FR citation]
- *60-day public comment period ends August ##, 2021
- ***Comments must be submitted via [regulations.gov](https://www.regulations.gov), using this rule's docket number: EPA-HQ-OPPT-2020-0549**
- *EPA specifically requests comment on:
 - * Identifying chemicals subject to reporting (i.e., specific PFAS and whether to include imported articles)
 - * Considerations for the economic analysis
 - * Submission period
 - * Potential duplicative reporting concerns
 - * Scope of "existing environmental and health information" collected
 - * Additional data elements or information collected
 - * EPA's use and publication of non-CBI data
 - * Joint submissions allowed when necessary
 - * Small manufacturer considerations (i.e., regulatory and non-regulatory assistance and outreach)



Appendix



Proposed Data Elements (1/5)

(A) THE COMMON OR TRADE NAME, THE CHEMICAL IDENTITY, AND THE MOLECULAR STRUCTURE OF EACH CHEMICAL SUBSTANCE OR MIXTURE FOR WHICH SUCH A REPORT IS REQUIRED.

- Chemical name (multiple if mixture)
- Generic name(s) if chemical name(s) is CBI
- Chemical ID(s) (CASRN, Accession Number, LVE case number)
- Trade name or common name
- Representative molecular structure (attachment)
- Physical state of chemical or mixture

(B) THE CATEGORIES OR PROPOSED CATEGORIES OF USE OF EACH SUCH SUBSTANCE OR MIXTURE.

- Industrial processing and use - type of process or use
- Industrial processing and use - sector(s)
- Industrial processing and use - function category
- Consumer and commercial use - product category
- Consumer and commercial use - function category
- Consumer and commercial use - consumer or commercial
- Consumer and commercial use - used in products intended for children
- Consumer and commercial use - maximum concentration in any product



Proposed Data Elements (2/5)

(C) THE TOTAL AMOUNT OF EACH SUCH SUBSTANCE AND MIXTURE MANUFACTURED OR PROCESSED, REASONABLE ESTIMATES OF THE TOTAL AMOUNT TO BE MANUFACTURED OR PROCESSED, THE AMOUNT MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE, AND REASONABLE ESTIMATES OF THE AMOUNT TO BE MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE OR PROPOSED CATEGORIES OF USE.

- * Production volume - domestically manufactured [for each year 2011-2023]
- * Production volume - imported [for each year 2011-2023]
- * Imported but never physically at site
- * Volume directly exported [for each year 2011-2023]
- * Industrial processing and use - % production volume [for each use for each year 2011-2023]
- * Consumer and commercial use - % production volume [for each use for each year 2011-2023]
- * Maximum first 12 months production volume
- * Maximum yearly production volume in any 3 years
- * Site-limited
- * Maximum quantity stored on-site at any time from 2011-2023
- * Total volume recycled (on-site) from 2011-2023



Proposed Data Elements (3/5)

(D) A DESCRIPTION OF THE BYPRODUCTS RESULTING FROM THE MANUFACTURE, PROCESSING, USE, OR DISPOSAL OF EACH SUCH SUBSTANCE OR MIXTURE.

- Byproduct chemical name(s) or description (if unknown)
- Byproduct generic name(s) if byproduct chemical name(s) is CBI
- Byproduct chemical ID(s) if applicable (CASRN, Accession Number, LVE case number)
- Was the byproduct produced from manufacture, process, use, or disposal?
- Was the byproduct released to the environment?
- If byproducts are released to the environment, indicate the environmental media they are released to
- Byproduct volume released [for each year 2011-2023]

(E) ALL EXISTING INFORMATION CONCERNING THE ENVIRONMENTAL AND HEALTH EFFECTS OF SUCH SUBSTANCE OR MIXTURE.

- OECD template (attachment)
- Study report (attachment)
- Supporting information (attachment)
- Other data relevant to environmental and health effects (e.g., range-finding studies, preliminary studies, OSHA medical screening or surveillance standards reports, adverse effects reports)



Proposed Data Elements (4/5)

(F) THE NUMBER OF INDIVIDUALS EXPOSED, AND REASONABLE ESTIMATES OF THE NUMBER WHO WILL BE EXPOSED, TO SUCH SUBSTANCE OR MIXTURE IN THEIR PLACES OF EMPLOYMENT AND THE DURATION OF SUCH EXPOSURE.

- Worker activity descriptions at manufacturing site
- Number of workers reasonably likely to be exposed at the manufacturing site, for each worker activity
- Maximum duration of exposure for any worker, for each worker activity (hours/day)
- Maximum duration of exposure for any worker, for each worker activity (days/year)
- Number of workers reasonably likely to be exposed for each industrial process and use
- Maximum duration of exposure for any worker for each industrial process and use (hours/day)
- Maximum duration of exposure for any worker for each industrial process and use (days/year)
- Number of workers reasonably likely to be exposed for each commercial use
- Maximum duration of exposure for any worker for each commercial use (hours/day)
- Maximum duration of exposure for any worker for each commercial use (days/year)



Proposed Data Elements (5/5)

{G} IN THE INITIAL REPORT UNDER PARAGRAPH (1) ON SUCH SUBSTANCE OR MIXTURE, THE MANNER OR METHOD OF ITS DISPOSAL, AND IN ANY SUBSEQUENT REPORT ON SUCH SUBSTANCE OR MIXTURE, ANY CHANGE IN SUCH MANNER OR METHOD.

- Description of disposal process(es)
- Description of any changes to the disposal process or methods since 2011
- Total volume released (land disposal) [for each year 2011-2023]
- Total volume released (water) [for each year 2011-2023]
- Total volume released (air) [for each year 2011-2023]
- Total volume incinerated (on-site) [for each year 2011-2023]
- If incineration occurs, the temperature at which the chemical was incinerated



CBI Requirements

•CBI statutory requirements (from 2016 Lautenberg Act):

- The submitter must now substantiate claims of confidentiality at the time information is submitted to EPA, except for types of information listed as exempt in TSCA (e.g., production volume) (TSCA sections 14(c)(2) and (3))
- The submitter must also provide a statement supporting the claim and must certify that the statement is true and correct (TSCA sections 14(c)(1)(B) and (5))
- Information on uses that customarily would be shared with the general public or within an industry or industry sector cannot be claimed as confidential (TSCA section 14(b)(3)(B))

Message

From: Pierce, Alison [Pierce.Alison@epa.gov]
Sent: 6/21/2021 3:57:51 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: OPPT IO Commetns on PFAS ChemWatch Presentation
Attachments: June 2021 ChemWatch Presentation_PFAS Data Call NPRM_TH.pptx

Hi Steph – Some comments/edits from Tala in the attached. She also asks that you additionally please “make absolutely sure the appendices (data elements) are 100% correct.”

Best,
Alison

Alison Pierce
202.564.2437 (office) | pierce.alison@epa.gov

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 6/24/2021 8:06:40 PM
To: Haff, Janet [haff.janet@epa.gov]
CC: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: PFAS & RDDs
Attachments: June 2021 ChemWatch Presentation_PFAS Data Call NPRM.pptx

The PFAS rule mentioned in what you pasted is a TSCA rule. Here's the prepub version:

https://www.epa.gov/sites/production/files/2021-06/documents/prepubcopy_10017-78_fr_doc_esignature_2021-06-10.pdf. It's scheduled to publish on Monday. I attached summary slides that were used for the public.

Steph is the lead.

In terms of PFAS, we recently updated the CFR to include the 3 PFAS auto added by the NDAA. Otherwise, first PFAS reports on 172 PFAS initially added to TRI are due July 1. Otherwise, nothing new as compared with earlier this year or last year.

-Dave

From: Haff, Janet <haff.janet@epa.gov>
Sent: Thursday, June 24, 2021 2:11 PM
To: Turk, David <Turk.David@epa.gov>
Subject: FW: PFAS & RDDs

Hi Dave,

I was wondering if there is anything new coming up for TRI/PFAS that you might be able to share?

Thanks

Janet Haff

From: Martig, Anton (Tony) <martig.anton@epa.gov>
Sent: Thursday, June 24, 2021 12:59 PM
To: Haff, Janet <haff.janet@epa.gov>
Subject: PFAS & RDDs

Below is the session on PFAS on the RDD meeting on Weds. Do you know of anything to provide to Ed in preparation?

Session #5: PFAS Session Leaders: Nancy Barmakian, Director, LCRD, R1 Ed Messina, Acting Director, OPP Jeff Dawson, OCSPP Senior Science Advisor Tala Henry, Deputy Director, OPPT Royan Teter, Chief, PTEB, WCED, OCE, OECA	Objective: Multi-Program PFAS Update <ul style="list-style-type: none">• Case study- Region 1• HQ Response<ul style="list-style-type: none">○ Lab Activities○ PFAS Agency Workgroup○ PFAS Definition○ PFAS Proposed Rule & Requirements• Q&A
---	--



TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances: Proposed Rule

U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 23, 2021

CHEMICAL WATCH PRESENTATION



Presentation Outline

- *Background
- *Overview of Proposed Rule
 - * Scope of PFAS
 - * Reporting Entities
 - * Data Elements
 - * Electronic Reporting
 - * Recordkeeping Requirements
- *Impacts of Proposed Rule
- *Projected Schedule
- **Federal Register* Notice



Background: What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals.
- PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s.
- PFAS can be found in a wide variety of consumer products (e.g., food packaging, cleaning products, paints, certain fire-fighting foam) and industrial uses (e.g., chrome plating, electronics manufacturing).
- There is evidence that exposure to PFAS can lead to adverse human health effects.
- For more information, please visit www.epa.gov/pfas.



Background: Rulemaking Authority

- *The Fiscal Year 2020 National Defense Authorization Act (NDAA) amended TSCA section 8(a) by adding section 8(a)(7).
- *TSCA section 8(a)(7) requires EPA to promulgate a rulemaking by January 1, 2023, requiring manufacturers (including importers) of a PFAS in any year since January 1, 2011, to submit a report to EPA containing information outlined in section 8(a)(2) for each year since January 1, 2011.



Overview of Proposed Rule



Scope of PFAS

•The scope of PFAS for this rulemaking are substances that structurally contain the unit $R-(CF_2)-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons and none of the R groups (R , R' or R'') can be hydrogen.

* Any TSCA chemical substance* meeting this definition which has been manufactured in any year since January 1, 2011, is reportable.

*Under TSCA, a "chemical substance" means: any organic or inorganic substance of a particular molecular identity, including— (i) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and (ii) any element or uncombined radical. (8) Such term does not include— (i) any mixture, (ii) any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.]) when manufactured, processed, or distributed in commerce for use as a pesticide, (iii) tobacco or any tobacco product, (iv) any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.] and regulations issued under such Act), (v) any article the sale of which is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1986 [26 U.S.C. 4181] (determined without regard to any exemptions from such tax provided by section 4182 or 4221 or any other provision of such Code) and any component of such an article (limited to shot shells, cartridges, and components of shot shells and cartridges), and (vi) any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act [21 U.S.C. 321]) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device. The term "food" as used in clause (vi) of this subparagraph includes poultry and poultry products (as defined in sections 4(e) and 4(f) of the Poultry Products Inspection Act [21 U.S.C. 453(e) and (f)]), meat and meat food products (as defined in section 1(j) of the Federal Meat Inspection Act [21 U.S.C. 601(j)]), and eggs and egg products (as defined in section 4 of the Egg Products Inspection Act [21 U.S.C. 1033]).



Scope of PFAS

- ♦ EPA has identified at least 1,364 PFAS under this structural definition, including:
 - All PFAS listed as active on the February 2021 TSCA Inventory
 - All PFAS with TSCA section 5 (new chemicals) low-volume exemption claims
- ♦ To assist companies with identifying PFAS, the rule and docket supporting files will include lists of PFAS on the TSCA Inventory or submitted as new chemical low-volume exemptions, and structural diagram examples to capture any PFAS that could not be specifically listed due to CBI claims.



Reporting Entities

- *Any person who has manufactured (including imported) a PFAS meeting the structural definition at any time since January 1, 2011, is required to report
- *No reporter exemptions to this proposed rule
 - * Unlike small manufacturer exemptions for other chemical reporting rules under TSCA section 8(a)(1), section 8(a)(7) specifically states that “each person who has manufactured a chemical substance that is a [PFAS]” shall be subject to the rule.



Data Elements

*TSCA section 8(a)(2) authorizes EPA to collect information on each PFAS regarding:

- * Chemical or mixture identity, trade name, and molecular structure
- * Categories of use
- * Quantity manufactured or processed for each category of use
- * Descriptions of byproducts resulting from the manufacture, processing, use, or disposal
- * Existing environmental and health effects information
- * Number of workers exposed and duration of exposure
- * Manner or method of disposal and any change in manner or method

*Some proposed data elements are similar to information required for the 2020 Chemical Data Reporting (CDR) cycle (e.g., production volumes, worker exposure information)

- * Key difference: this rule requires information for each year in which that PFAS was manufactured, without exemptions
- * To mitigate duplicative reporting, EPA proposes to allow submitters to indicate in the reporting tool if they have provided this information to EPA already, for that year



Electronic Reporting

- *EPA will create a new reporting tool for this rule
 - * Hosted on CDX with other chemical information systems reporting tools
- *EPA is proposing to allow reporters to indicate to EPA if they have already provided a specific data element, for that same year, to EPA under another CDX reporting program to mitigate potential duplicative reporting
- *Environmental and health effects information submitted in the format of OECD harmonized templates when applicable (not all data endpoints have established templates)
 - * Underlying data or relevant study reports uploaded as attachments
- *CBI claims and substantiations will follow requirements and procedures under TSCA section 14



Recordkeeping Requirements

- *Proposed 5-year recordkeeping period following final date of submission period
- *Rationale:
 - * Consistent with CDR rule and some other 8(a) chemical-specific reporting rules
 - * Retention requirement corresponds with statute of limitations for violations
 - * Supports EPA's future activities informed by this data call



Impacts of Proposed Rule

- ♦ 234 respondents are expected to report under this one-time data call
 - ♦ Expected respondents identified in the Chemical Data Reporting database and extrapolated to include manufacturers not in CDR database
- ♦ Estimated total industry burden and cost:
 - ♦ \$9.8 million
 - ♦ 122,104 hours (no annualized capital or operation and maintenance costs)
- ♦ Economic costs include rule familiarization, form completion, CBI claim substantiation, electronic reporting, and recordkeeping activities.
- ♦ Benefits EPA by providing information on PFAS which the Agency does not currently have



How EPA May Use These Data

• **Support implementation of TSCA**

- Informs development of potential existing chemical risk management efforts
- Informs TSCA new chemical reviews (e.g., health/environmental effects info submitted may provide read-across data for new chemical analogs)
- Informs the understanding of new analytical methods
- Informs future TSCA section 6 activities
 - Support prioritization, scoping and risk evaluations
 - Apply to criteria for TSCA high/low prioritization

• **Share with other EPA offices:** Section 9 of TSCA mandates that EPA share certain information collected under TSCA with other EPA offices.

- Supports other EPA programs (e.g., contaminated site work, solid waste disposal, drinking water management)



Projected Schedule

- ◊ *NPRM published on June ##, 2021*
- ◊ **60-day public comment period until August ##, 2021**
- ◊ Statutory deadline for final rule by January 1, 2023
- ◊ Proposed 6-month deferral of data submission period after effective date of final rule
 - ◊ Allow EPA to finalize reporting software with required data elements
 - ◊ Allow companies to become familiar with rule and begin data gathering
- ◊ Proposed 6-month submission period
 - ◊ Reporting deadline will thus be one year from effective date of rule



Federal Register Notice: NPRM

- Published in the *Federal Register* on June ##, 2021 [FR citation]
- 60-day public comment period ends August ##, 2021
- **Comments must be submitted via [regulations.gov](https://www.regulations.gov), using this rule's docket number: EPA-HQ-OPPT-2020-0549**
- EPA specifically requests comment on:
 - Identifying chemicals subject to reporting (i.e., specific PFAS and whether to include imported articles)
 - Considerations for the economic analysis
 - Submission period
 - Potential duplicative reporting concerns
 - Scope of "existing environmental and health information" collected
 - Additional data elements or information collected
 - EPA's use and publication of non-CBI data
 - Joint submissions allowed when necessary
 - Small manufacturer considerations (i.e., regulatory and non-regulatory assistance and outreach)



Appendix



Proposed Data Elements (1/5)

(A) THE COMMON OR TRADE NAME, THE CHEMICAL IDENTITY, AND THE MOLECULAR STRUCTURE OF EACH CHEMICAL SUBSTANCE OR MIXTURE FOR WHICH SUCH A REPORT IS REQUIRED.

- Chemical name (multiple if mixture)
- Generic name(s) if chemical name(s) is CBI
- Chemical ID(s) (CASRN, Accession Number, LVE case number)
- Trade name or common name
- Representative molecular structure (attachment)
- Physical state of chemical or mixture

(B) THE CATEGORIES OR PROPOSED CATEGORIES OF USE OF EACH SUCH SUBSTANCE OR MIXTURE.

- Industrial processing and use - type of process or use
- Industrial processing and use - sector(s)
- Industrial processing and use - function category
- Consumer and commercial use - product category
- Consumer and commercial use - function category
- Consumer and commercial use - consumer or commercial
- Consumer and commercial use - used in products intended for children
- Consumer and commercial use - maximum concentration in any product



Proposed Data Elements (2/5)

(C) THE TOTAL AMOUNT OF EACH SUCH SUBSTANCE AND MIXTURE MANUFACTURED OR PROCESSED, REASONABLE ESTIMATES OF THE TOTAL AMOUNT TO BE MANUFACTURED OR PROCESSED, THE AMOUNT MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE, AND REASONABLE ESTIMATES OF THE AMOUNT TO BE MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE OR PROPOSED CATEGORIES OF USE.

- * Production volume - domestically manufactured [for each year 2011-2023]
- * Production volume - imported [for each year 2011-2023]
- * Imported but never physically at site
- * Volume directly exported [for each year 2011-2023]
- * Industrial processing and use - % production volume [for each use for each year 2011-2023]
- * Consumer and commercial use - % production volume [for each use for each year 2011-2023]
- * Maximum first 12 months production volume
- * Maximum yearly production volume in any 3 years
- * Site-limited
- * Maximum quantity stored on-site at any time from 2011-2023
- * Total volume recycled (on-site) from 2011-2023



Proposed Data Elements (3/5)

(D) A DESCRIPTION OF THE BYPRODUCTS RESULTING FROM THE MANUFACTURE, PROCESSING, USE, OR DISPOSAL OF EACH SUCH SUBSTANCE OR MIXTURE.

- Byproduct chemical name(s) or description (if unknown)
- Byproduct generic name(s) if byproduct chemical name(s) is CBI
- Byproduct chemical ID(s) if applicable (CASRN, Accession Number, LVE case number)
- Was the byproduct produced from manufacture, process, use, or disposal?
- Was the byproduct released to the environment?
- If byproducts are released to the environment, indicate the environmental media are they released to
- Byproduct volume released [for each year 2011-2023]

(E) ALL EXISTING INFORMATION CONCERNING THE ENVIRONMENTAL AND HEALTH EFFECTS OF SUCH SUBSTANCE OR MIXTURE.

- OECD template (attachment)
- Study report (attachment)
- Supporting information (attachment)
- Other data relevant to environmental and health effects (e.g., range-finding studies, preliminary studies, OSHA medical screening or surveillance standards reports, adverse effects reports)



Proposed Data Elements (4/5)

(F) THE NUMBER OF INDIVIDUALS EXPOSED, AND REASONABLE ESTIMATES OF THE NUMBER WHO WILL BE EXPOSED, TO SUCH SUBSTANCE OR MIXTURE IN THEIR PLACES OF EMPLOYMENT AND THE DURATION OF SUCH EXPOSURE.

- Worker activity descriptions at manufacturing site
- Number of workers reasonably like to be exposed at the manufacturing site, for each worker activity
- Maximum duration of exposure for any worker, for each worker activity (hours/day)
- Maximum duration of exposure for any worker, for each worker activity (days/year)
- Number of workers reasonably likely to be exposed for each industrial process and use
- Maximum duration of exposure for any worker for each industrial process and use (hours/day)
- Maximum duration of exposure for any worker for each industrial process and use (days/year)
- Number of workers reasonably likely to be exposed for each commercial use
- Maximum duration of exposure for any worker for each commercial use (hours/day)
- Maximum duration of exposure for any worker for each commercial use (days/year)



Proposed Data Elements (5/5)

{G} IN THE INITIAL REPORT UNDER PARAGRAPH (1) ON SUCH SUBSTANCE OR MIXTURE, THE MANNER OR METHOD OF ITS DISPOSAL, AND IN ANY SUBSEQUENT REPORT ON SUCH SUBSTANCE OR MIXTURE, ANY CHANGE IN SUCH MANNER OR METHOD.

- Description of disposal process(es)
- Description of any changes to the disposal process or methods since 2011
- Total volume released (land disposal) [for each year 2011-2023]
- Total volume released (water) [for each year 2011-2023]
- Total volume released (air) [for each year 2011-2023]
- Total volume incinerated (on-site) [for each year 2011-2023]
- If incineration occurs, the temperature at which the chemical was incinerated



CBI Requirements

•CBI statutory requirements (from 2016 Lautenberg Act):


- The submitter must now substantiate claims of confidentiality at the time information is submitted to EPA, except for types of information listed as exempt in TSCA (e.g., production volume) (TSCA sections 14(c)(2) and (3))
- The submitter must also provide a statement supporting the claim and must certify that the statement is true and correct (TSCA sections 14(c)(1)(B) and (5))
- Information on uses that customarily would be shared with the general public or within an industry or industry sector cannot be claimed as confidential (TSCA section 14(b)(3)(B))

Message

From: Pachon, Carlos [Pachon.Carlos@epa.gov]
Sent: 5/7/2020 6:38:35 PM
To: Resek, Elizabeth [Resek.Elizabeth@epa.gov]; Birchfield, Norman [Birchfield.Norman@epa.gov]; Galbraith, Michael [Galbraith.Michael@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Tolaymat, Thabet [Tolaymat.Thabet@epa.gov]; Spells, Charlene [Spells.Charlene@epa.gov]; Johnson, SusanA [Johnson.SusanA@epa.gov]; Gillespie, Andrew [Gillespie.Andrew@epa.gov]; Bates, William [bates.william@epa.gov]; Baier-Anderson, Caroline [Baier-Anderson.Caroline@epa.gov]
CC: Gilbert, Edward [Gilbert.Edward@epa.gov]
Subject: Scoping paper

Flag: Follow up

Pachon, Carlos has shared a OneDrive for Business file with you. To view it, click the link below.

 NDAA PFAS Guidance_Scoping White Paper.docx

Hello Section Leads:

Per our recent discussions on the scope of the guidance we sought to synthesize the issue/resolution/implication of our scoping principles (Section 1.b.ii) in the attached one-pager. The initial question was on land application of biosolids, but now covers three points:

- Definition of PFAS
- Definition of destruction and disposal (addresses land application while avoiding a tangle with definition of disposal)
- Definition scoping our pollution control technologies, but not their residuals.

This paper is for to record the deliberation by workgroup members, not for inclusion on the guidance.

You input is appreciated, including an “all ok” if that is the case, an we can share wth the workgroup.

Carlos Pachon
US Environmental Protection Agency
pachon.carlos@epa.gov
<http://clu.in.org>
703-603-9904 (desk)
571-216-2060 (cell)

Message

From: Spells, Charlene [Spells.Charlene@epa.gov]
Sent: 5/8/2020 11:54:33 AM
To: Pachon, Carlos [Pachon.Carlos@epa.gov]; Resek, Elizabeth [Resek.Elizabeth@epa.gov]; Birchfield, Norman [Birchfield.Norman@epa.gov]; Galbraith, Michael [Galbraith.Michael@epa.gov]; Griffin, Stephanie [griffin.stephanie@epa.gov]; Tolaymat, Thabet [Tolaymat.Thabet@epa.gov]; Johnson, SusanA [Johnson.SusanA@epa.gov]; Gillespie, Andrew [Gillespie.Andrew@epa.gov]; Bates, William [bates.william@epa.gov]; Baier-Anderson, Caroline [Baier-Anderson.Caroline@epa.gov]
CC: Gilbert, Edward [Gilbert.Edward@epa.gov]
Subject: RE: Scoping paper
Attachments: NDAA PFAS Guidance_Scoping White Paper mg comms ces.docx

Comments attached to Mike's since they are related.

Charlene E. Spells
U.S. EPA
OAQPS/SPPD
RTP, NC 27711
Phone: (919) 541-5255 Fax: (919) 541-0516
spells.charlene@epa.gov

From: Pachon, Carlos <Pachon.Carlos@epa.gov>
Sent: Thursday, May 7, 2020 2:39 PM
To: Resek, Elizabeth <Resek.Elizabeth@epa.gov>; Birchfield, Norman <Birchfield.Norman@epa.gov>; Galbraith, Michael <Galbraith.Michael@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Tolaymat, Thabet <Tolaymat.Thabet@epa.gov>; Spells, Charlene <Spells.Charlene@epa.gov>; Johnson, SusanA <Johnson.SusanA@epa.gov>; Gillespie, Andrew <Gillespie.Andrew@epa.gov>; Bates, William <bates.william@epa.gov>; Baier-Anderson, Caroline <Baier-Anderson.Caroline@epa.gov>
Cc: Gilbert, Edward <Gilbert.Edward@epa.gov>
Subject: Scoping paper

Hello Section Leads:

Per our recent discussions on the scope of the guidance we sought to synthesize the issue/resolution/implication of our scoping principles (Section 1.b.ii) in the attached one-pager. The initial question was on land application of biosolids, but now covers three points:

- Definition of PFAS
- Definition of destruction and disposal (addresses land application while avoiding a tangle with definition of disposal)
- Definition scoping our pollution control technologies, but not their residuals.

This paper is for to record the deliberation by workgroup members, not for inclusion on the guidance.

You input is appreciated, including an "all ok" if that is the case, and we can share with the workgroup.

Carlos Pachon
US Environmental Protection Agency
pachon.carlos@epa.gov
<http://clu.in.org>
703-603-9904 (desk)
571-216-2060 (cell)

Message

From: Fitz, Nancy [Fitz.Nancy@epa.gov]
Sent: 6/22/2020 1:27:08 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]; Smith, Peterj [Smith.Peterj@epa.gov]; Picone, Kaitlin [Picone.Kaitlin@epa.gov]; Leifer, Kerry [Leifer.Kerry@epa.gov]
CC: Schroeder, Carolyn [Schroeder.Carolyn@epa.gov]; Hofmann, Angela [Hofmann.Angela@epa.gov]; Lloyd, Matthew [Lloyd.Matthew@epa.gov]
Subject: RE: NDAA PFAS guidance pesticide equities?

Stephanie,

You are welcome. Just to close the loop, I asked Kerry Leifer, the branch chief of the Chemistry, Inerts and Toxicology Assessment Branch if PFAS are used in pesticide manufacturing or formulation. His response was:

The answer to the question is "it depends." Basically there are a few definitions of PFAS. The "classical" definition of PFAS includes PFOA and PFOS compounds, for which there are no currently registered products containing these as either active or inert ingredients. There is also a much broader definition of PFAS that could be interpreted to include a few pesticide a.i.s.

If you need more information about that from Kerry, I have added him to his email so you can go straight to the source.

Nancy

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, June 19, 2020 8:29 AM
To: Smith, Peterj <Smith.Peterj@epa.gov>; Fitz, Nancy <Fitz.Nancy@epa.gov>; Picone, Kaitlin <Picone.Kaitlin@epa.gov>
Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Lloyd, Matthew <Lloyd.Matthew@epa.gov>
Subject: RE: NDAA PFAS guidance pesticide equities?

Thanks, Nancy! I don't believe we need anything more, especially if there's not much overlap with pesticide manufacture. Thank you for reviewing.

Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Thursday, June 18, 2020 6:05 PM
To: Fitz, Nancy <Fitz.Nancy@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Picone, Kaitlin <Picone.Kaitlin@epa.gov>
Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Lloyd, Matthew <Lloyd.Matthew@epa.gov>
Subject: RE: NDAA PFAS guidance pesticide equities?

Nancy,

This is incredibly helpful! Thank you so much for your in-depth consideration. I hope all is well!

Best,
Peter

NOTICE: If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.

Peter J. Smith | Office phone 202/564-0262 | Mobile phone 202/845-3485 | smith.peterj@epa.gov
US EPA | Office of Chemical Safety & Pollution Prevention | Regulatory & Information Coordination Staff

From: Fitz, Nancy <Fitz.Nancy@epa.gov>
Sent: Thursday, June 18, 2020 6:03 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Picone, Kaitlin <Picone.Kaitlin@epa.gov>; Smith, Peterj <Smith.Peterj@epa.gov>
Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Lloyd, Matthew <Lloyd.Matthew@epa.gov>
Subject: RE: NDAA PFAS guidance pesticide equities?

Hello everyone,

I am not sure about whether we need to provide a formal response, so I'm responding to all right now. Please let me know if you all need something more formal and I can work to make that happen next week.

I reviewed the PFAS Guidance document and do not see any conflicts or problems with the pesticide container-containment regulations or managing pesticide containers in general. The guidance document does not establish any requirements and, for pesticides, seems to focus on pesticide manufacturing, so there really is no overlap with the pesticide container requirements in 40 CFR Part 165. Even if managing pesticide containers by end users was included, the most common disposal method is landfilling, which is one of the three disposal methods analyzed in the guidance.

My main question is how many/how often PFAS are used in pesticide manufacturing. I searched our pesticide database for chemicals with "perfluoro" in them. While I realize this is probably too simplistic of a search, seven of the ten chemicals have been cancelled or do not have any active products. The other three are inert ingredients that seem to be used. I will reach out to Kerry Leifer, who manages the Inerts Team, in the Registration Division to get his input and will provide that next week.

Stephanie, I do not have any knowledge of solid waste streams containing PFAS that are released from pesticide manufacturing facilities in response to the additional question you posed to me (see below). However for solid pesticide formulations, I suspect the solid waste streams would be similar to plastics manufacturing and could include at the very least dusts and off-spec product.

From lit reviews, we were able to add liquid and gas stream phase wastes from pesticide manufacturing facilities, but nothing definitive on solid waste streams. If you're aware of examples of solid waste streams containing PFAS that are released from these facilities (e.g., dusts, micropowders, spent rags/cloths, off-spec products, etc.)—please do let me know and I'll incorporate (w/ references). No worries if this isn't a typical waste stream; this table isn't meant to be exhaustive, and not every industry listed has examples for all 3 phases.

That's all that I have. Please let me know if you have any questions or need more information.

Nancy Fitz
Minor Use Team Leader
Office of Pesticide Programs
U.S. Environmental Protection Agency

phone: 703-305-7385

email: fitz.nancy@epa.gov

web site: <https://www.epa.gov/pesticide-registration/minor-uses-and-grower-resources>

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Monday, June 08, 2020 3:09 PM

To: Picone, Kaitlin <Picone.Kaitlin@epa.gov>; Smith, Peterj <Smith.Peterj@epa.gov>

Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Fitz, Nancy <Fitz.Nancy@epa.gov>; Lloyd, Matthew <Lloyd.Matthew@epa.gov>

Subject: RE: NDAA PFAS guidance pesticide equities?

Thanks, Kaitlin (and Nancy!). The workgroup would appreciate comments ASAP, but at the very latest by workgroup closure June 18-23.

Stephanie Griffin
(202) 564-1463

From: Picone, Kaitlin <Picone.Kaitlin@epa.gov>

Sent: Monday, June 08, 2020 3:04 PM

To: Smith, Peterj <Smith.Peterj@epa.gov>

Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Fitz, Nancy <Fitz.Nancy@epa.gov>; Lloyd, Matthew <Lloyd.Matthew@epa.gov>

Subject: RE: NDAA PFAS guidance pesticide equities?

Thanks for sending this our way Peter. Nancy Fitz will take the lead reviewing this one for us. What's the latest she can send comments for you to consolidate?

Kaitlin

From: Smith, Peterj <Smith.Peterj@epa.gov>

Sent: Monday, June 8, 2020 10:15 AM

To: Picone, Kaitlin <Picone.Kaitlin@epa.gov>

Cc: Schroeder, Carolyn <Schroeder.Carolyn@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>

Subject: NDAA PFAS guidance pesticide equities?

Importance: High

Hi Kaitlin,

OLEM's PFAS destruction/disposal guidance, required under the NDAA with a statutory deadline, is chugging along and working towards a workgroup closure process in the very near future. As noted in the thread below, the guide makes a very brief reference to pesticide products that may contain PFAS as an additive, and so we think the guide merits some quick OPP review to ensure that program equities (e.g., container/containment regs) are not negatively impacted. If memory serves, CWPB has the container/containment program so maybe Carolyn's team can give the attached some quick attention and let us know if there are any comments/concerns?

Thank you!

Peter

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, June 08, 2020 9:58 AM
To: Smith, Peterj <Smith.Peterj@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>
Subject: RE: OCSPP ADP lead on the NDAA PFAS guidance workgroup

Thanks for taking a quick look. To my knowledge, this has not been shared with OPP. I'm not sure to whom in OPP this would be sent for verification.

Stephanie Griffin
(202) 564-1463

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Monday, June 08, 2020 9:49 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>
Subject: RE: OCSPP ADP lead on the NDAA PFAS guidance workgroup

Thank you, Stephanie! Has anyone in OPP seen this? I glanced through this very quickly, and see references to pesticidal uses (additive) and liquid residues from empty containers on p. 2-5. I'm pretty sure that OLEM has the spills and wastewater angles cover, but it might merit some quick verification with our OPP colleagues that the guidance doesn't create any conflict or open any new PFAS-related implementation questions relative the pesticide container/containment requirements at 40 CFR 165, especially with respect to management of rinsates from refillable containers. (E.g., would workers on an ag establishment know that a product contains any PFAS additives such that they would also need to be aware of this guidance?)

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, June 05, 2020 12:44 PM
To: Hofmann, Angela <Hofmann.Angela@epa.gov>; Smith, Peterj <Smith.Peterj@epa.gov>
Cc: Reisman, Larry <Reisman.Larry@epa.gov>; Turk, David <Turk.David@epa.gov>; Pachon, Carlos <Pachon.Carlos@epa.gov>
Subject: FW: OCSPP ADP lead on the NDAA PFAS guidance workgroup

Hi Angela and Peter,

I wanted to forward a courtesy copy of the NDAA PFAS Destruction and Disposal interim guidance, should the OCSPP IO inquire. Due to the tight timeline, the workgroup is concurrently editing while navigating the ADP workflow – at this point, we're not making any more major changes, but there's copy editing/wordsmithing still happening.

For OCSPP's scope: TRI & CDR are mentioned briefly in Section 2's introduction and CDR again later in Section 2.a. I highlighted the paragraphs in the attached file.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Pachon, Carlos <Pachon.Carlos@epa.gov>
Sent: Thursday, June 04, 2020 5:17 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Ruedy, Daniel <Ruedy.Daniel@epa.gov>
Cc: Gilbert, Edward <Gilbert.Edward@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Foster, Stiven

<Foster.Stiven@epa.gov>; Smith, Peterj <Smith.Peterj@epa.gov>

Subject: OCSPP ADP lead on the NDAA PFAS guidance workgroup

Hello Stephanie and Dan— I believe OCSPP has not identified a primary workgroup member for the NDAA PFAS DD Guidance. As you are the only OCSPP workgroup members, yet multiple programs in OCSPP may have an interest in it, you may need assistance in the review process. Please you contact your Regulatory Steering Committee representative for guidance on identifying the primary workgroup member. I've been told your RSC POCs are Angela Hofmann and Peter J Smith (ccd).

Note the spirit of the current management review (June 3-10, see attachment) is to raise their awareness as to the goal and content of the guidance and seek their input (through DD and OD). We are not requesting a review and markup (though that is their decision). On the week of 6/17 the document should be ready for IO review. The OCSPP primary workgroup member will play a critical role here as well

Carlos Pachon
US Environmental Protection Agency
pachon.carlos@epa.gov
<http://clu.in.org>
703-603-9904 (desk)
571-216-2060 (cell)

From: Turk, David [Turk.David@epa.gov]
Sent: 10/7/2020 1:17:17 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: FW: PFAS Data Call Monthly Check-in
Attachments: PFAS 8(a)(7) Rulemaking Data Use Webinar.pptx; RE: PFAS thought starter; PFAS rule_AGENDA_9-24-20.docx; OECD Template Burdens V2.docx; PFAS CC_DataUse thought-starter.docx

Here's a slew of materials. Here's some info from the agenda file (attached).

B. Status of Decision Items from July 21st meeting with Tala:

- Data use:
 - a. EPA PFAS Coordinating Committee
 - i. CDD has drafted email and 1-pager for your review
 - ii. PowerPoint (attached)
 - b. OECD Templates: Should this PFAS data call be the first rule to require data in OECD template format?
 - i. Burden on submitters
 - 1. Total Average Burden per Chemical = **57.7 hours**
 - 2. Total Average Burden Per Chemical * Number of Chemicals Subject to Proposed Rule = **96,244**
 - ii. IT Infrastructure Cost to Agency
 - 1. Submitter would attach data via OECD template (~100K)
 - a. RAD's IUCLID instance to read and import template fields
- Outreach: CCD created a 1-pager for early outreach options
 - a. Waiting for decision on approach
- Reorganization: Discussion on where this rulemaking will go and who will be leading the project
- PFAS scope:
 - a. LVE clarification (ongoing)
 - b. PFAS definition update based on TRI (ongoing)
 - c. Following-up with 8 PFAS under Air act – need Air contact
 - d. Reasoning for not using exemptions (not started)
 - e. determine how many non-fluoro containing generic names need to still be declassified – (Ongoing)

D. Upcoming Items

- Briefing OCSPP IO on rulemaking progress - TBD
- NPRM Package Development October 1st – December 16th

NPRM package development with workgroup (Note: initiate and complete development of regulatory options)	October – November
Share portions of NPRM with partner agencies	October
EA finalization	October
ICR drafting	October – November
Workgroup NPRM review + revisions	12/2/2020 -12/15/2020
Workgroup NPRM second review + revisions	12/16/2020 – 12/22/2020
Materials to BC for Sign-Off	12/23/2020 – 12/30/2020

Materials to DDs for Sign-Off	12/31/2020 – 1/7/2021
12866 NPRM Package to OPPT OD for Sign-Off	1/8/2021-1/12/2021
12866 NPRM package – OD Sign-Off and Submission to RCS	1/13/2021

-Dave

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Thursday, September 24, 2020 11:28 AM
To: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Turk, David <Turk.David@epa.gov>
Subject: RE: PFAS Data Call Monthly Check-in

Here are the other files that Tala requested during the meeting.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>
Sent: Thursday, September 24, 2020 11:04 AM
To: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>
Subject: RE: PFAS Data Call Monthly Check-in

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Thursday, September 24, 2020 11:03 AM
To: Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>
Subject: PFAS Data Call Monthly Check-in

I do not have access to the SharePoint site where the Agenda is...please send me downloaded copy of Agenda.
Thx

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

Message

From: Fahning, Diana [Fahning.Diana@epa.gov]
Sent: 9/2/2020 3:31:45 PM
To: Passe, Loraine [Passe.Loraine@epa.gov]
CC: Blaufuss, Hannah [Blaufuss.Hannah@epa.gov]; Weir, Harlan [weir.harlan@epa.gov]
Subject: RE: PFAS thought starter

Okay, here it is with the edits integrated:

Greetings PFAS Coordinating Committee,

Ex. 5 Deliberative Process (DP)

*We seek your response by [insert date and time one week after webinar; **highlight and bold DELETE unless we have webinar info to add**]. If you have any questions, please reach out to Hannah Blaufuss (Blaufuss.hannah@epa.gov).*

Thank you,

Tala Henry

Diana Fahning

Environmental Protection Specialist
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Chemical control Division
Phone: 202-564-8621

From: Passe, Loraine <Passe.Loraine@epa.gov>
Sent: Wednesday, September 2, 2020 10:06 AM
To: Fahning, Diana <Fahning.Diana@epa.gov>
Cc: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>
Subject: RE: PFAS thought starter

Some edits below. Looks good!

Loraine Passe, Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency

Office of Pollution Prevention and Toxics
Chemical Control Division
Phone: (202) 564-9064

From: Fahning, Diana <Fahning.Diana@epa.gov>
Sent: Wednesday, September 2, 2020 9:47 AM
To: Passe, Loraine <Passe.Loraine@epa.gov>
Cc: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>
Subject: RE: PFAS thought starter

Oops, I was supposed to send the updated version of the email for Tala for the PFAS Coordinating Committee. Here it is below:

Ex. 5 Deliberative Process (DP)

*We seek your response by [insert date and time one week after webinar; **highlight and bold DELETE** unless we have webinar info to add]. If you have any questions, please reach out to Hannah Blaufuss (Blaufuss.hannah@epa.gov).*

Thank you,

Tala Henry

Diana Fahning
Environmental Protection Specialist
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Chemical control Division
Phone: 202-564-8621

From: Fahning, Diana
Sent: Wednesday, September 2, 2020 9:39 AM
To: Passe, Loraine <Passe.Loraine@epa.gov>
Cc: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>
Subject: RE: PFAS thought starter

Hi Loraine,

We've updated the thought starter and it can be found [here](#). We will send along the PowerPoint when it is finished.

Below is a draft email with our agenda for Lynn:

Ex. 5 Deliberative Process (DP)

Diana Fahning

Environmental Protection Specialist
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Chemical control Division
Phone: 202-564-8621

From: Passe, Loraine <Passe.Loraine@epa.gov>

Sent: Wednesday, August 26, 2020 12:42 PM

To: Fahning, Diana <Fahning.Diana@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>

Subject: PFAS thought starter

I was thinking it might be helpful to add "prompt questions" to the thought-starter. Maybe a "Thought-starter Questions to Consider" header at the end with simple questions along the lines of:

- Could your Office use PFAS data (use, exp, and H&S data) for implementation of your program
- How would you use the data?
- Are there deficiencies in the PFAS data you have now that impact your program?
- Will you have the resources to review incoming information?

Others...?

Loraine Passe, Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Chemical Control Division
Phone: (202) 564-9064

AGENDA

PFAS Data Call: Section 8(a)(7) Rulemaking Follow Up Informational/Decision meeting with OPPT IO (Tala Henry)

A. Rulemaking Summary: EPA is required to issue reporting and recordkeeping requirements for PFAS under TSCA as amended by the Fiscal Year 2020 NDAA. As mandated by the amendments, EPA will be proposing to require certain persons that manufacture (including import) or have manufactured these chemical substances in any year since January 1, 2011, to electronically report one-time to EPA certain information. *Statutory Deadline:* January 1, 2023 (final rule).

B. Status of Decision Items from July 21st meeting with Tala:

- Data use:
 - a. EPA PFAS Coordinating Committee
 - i. CDD has drafted email and 1-pager for your review
 - ii. PowerPoint (attached)
 - b. OECD Templates: Should this PFAS data call be the first rule to require data in OECD template format?
 - i. Burden on submitters
 - 1. Total Average Burden per Chemical = **57.7 hours**
 - 2. Total Average Burden Per Chemical * Number of Chemicals Subject to Proposed Rule = **96,244**
 - ii. IT Infrastructure Cost to Agency
 - 1. Submitter would attach data via OECD template (~100K)
 - a. RAD's IUCLID instance to read and import template fields
- Outreach: CCD created a 1-pager for early outreach options
 - a. Waiting for decision on approach
- Reorganization: Discussion on where this rulemaking will go and who will be leading the project
- PFAS scope:
 - a. LVE clarification (ongoing)
 - b. PFAS definition update based on TRI (ongoing)
 - c. Following-up with 8 PFAS under Air act – need Air contact
 - d. Reasoning for not using exemptions (not started)
 - e. determine how many non-fluoro containing generic names need to still be declassified – (Ongoing)

D. Upcoming Items

- Briefing OCSPP IO on rulemaking progress - TBD
- NPRM Package Development October 1st – December 16th

NPRM package development with workgroup (Note: initiate and complete development of regulatory options)	October – November
Share portions of NPRM with partner agencies	October
EA finalization	October
ICR drafting	October – November
Workgroup NPRM review + revisions	12/2/2020 - 12/15/2020

Workgroup NPRM second review + revisions	12/16/2020 – 12/22/2020
Materials to BC for Sign-Off	12/23/2020 – 12/30/2020
Materials to DDs for Sign-Off	12/31/2020 – 1/7/2021
12866 NPRM Package to OPPT OD for Sign-Off	1/8/2021-1/12/2021
12866 NPRM package – OD Sign-Off and Submission to RCS	1/13/2021

- Placement in CFR

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 10/7/2020 1:22:47 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: RE: PFAS Data Call Monthly Check-in

Here's some general info re: the workgroup from an Excel that Virginia prepared that lists CITB activities.

Projects	Current Status	Comments	CCD	RAD	CESSD	IMD
Section 8(a) PFAS rule	PFAS coordination committee outreach materials w/Tala Henry; NPRM package development with workgroup	biweekly workgroup meeting & monthly Tala briefing	Hannah Blaufuss, Diana Fahning, Harlan Weir, Tom Smith		Kathy Schechter, Leigh Callahan	

-Dave

From: Turk, David
Sent: Wednesday, October 7, 2020 9:20 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: PFAS Data Call Monthly Check-in

Notes I took during the meeting with Tala – I can try to explain anything unclear from my notes.

Collecting info on PFAS that have been manufactured in US from 2011 to when rule goes into effect on Jan 1, 2023. Info collected will have much overlap with CDR – PV, PVs for specific uses, use categories, number of workers that are potentially exposed during manufacturing/use, duration of that exposure – **difference: also asking for health/safety info.** *For redundancy CDR, substantial risk reports, some info in PMN form.* Scope of PFAS – doesn't say what this means, in terms of how broad a definition or even if its bounded by TSCA chemicals. Proposing to focus on TSCA chemicals and LVEs that wouldn't be on the inventory. Would include CBI and non-CBI chemicals.

How will info be collected is an issue to discuss (will be electronic) and NDAA doesn't indicate how to use this info. Thus, one outreach activity is to ask PFAS coordinating committee if this info would be useful.

Small business exemption is not being applied because we've interpreted that we don't need to adhere to it – it's a stand-alone 8(a)(7).

Any manufacturer (including importer) at any point between 2011 and now unless had already submitted the info to CDR or 8(e) PMNs.

Many 8(e) are just lists – “we ran a study and something bad happened” doesn't suffice. We're asking for full study report, not just the letter that states the bad effect. For such reports, the letter is required in 30 days, thus initial info is likely not fully developed. Some entities will then follow-up with more details, but not all facilities.

Not too much of an ask to put the onus on them – they need to look anyhow to determine if they had provided such info thus it's not hard to have them indicate what they reported (like CDR and year) or 8(e) and # for that submission.

Negative reporting required for some entities? – I have nothing to report

1. One Pager and Intro email for PFAS community
2. Burden for template is an average

Grid of LVEs that shows from 2011 to today how much they were allowed to make. Need pros and cons regarding whether to exclude any of the LVEs. If there are only a handful, we could move on.

-Dave

From: Turk, David
Sent: Wednesday, October 7, 2020 9:17 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: FW: PFAS Data Call Monthly Check-in

Here's a slew of materials. Here's some info from the agenda file (attached).

B. Status of Decision Items from July 21st meeting with Tala:

- Data use:
 - a. EPA PFAS Coordinating Committee
 - i. CDD has drafted email and 1-pager for your review
 - ii. PowerPoint (attached)
 - b. OECD Templates: Should this PFAS data call be the first rule to require data in OECD template format?
 - i. Burden on submitters
 1. Total Average Burden per Chemical = **57.7 hours**
 2. Total Average Burden Per Chemical * Number of Chemicals Subject to Proposed Rule = **96,244**
 - ii. IT Infrastructure Cost to Agency
 1. Submitter would attach data via OECD template (~100K)
 - a. RAD's IUCLID instance to read and import template fields
- Outreach: CCD created a 1-pager for early outreach options
 - a. Waiting for decision on approach
- Reorganization: Discussion on where this rulemaking will go and who will be leading the project
- PFAS scope:
 - a. LVE clarification (ongoing)
 - b. PFAS definition update based on TRI (ongoing)
 - c. Following-up with 8 PFAS under Air act – need Air contact
 - d. Reasoning for not using exemptions (not started)
 - e. determine how many non-fluoro containing generic names need to still be declassified – (Ongoing)

D. Upcoming Items

- Briefing OCSPP IO on rulemaking progress - TBD
- NPRM Package Development October 1st – December 16th

NPRM package development with workgroup (Note: initiate and complete development of regulatory options)	October – November
Share portions of NPRM with partner agencies	October
EA finalization	October
ICR drafting	October – November
Workgroup NPRM review + revisions	12/2/2020 -12/15/2020
Workgroup NPRM second review + revisions	12/16/2020 – 12/22/2020
Materials to BC for Sign-Off	12/23/2020 – 12/30/2020
Materials to DDs for Sign-Off	12/31/2020 – 1/7/2021
12866 NPRM Package to OPPT OD for Sign-Off	1/8/2021-1/12/2021
12866 NPRM package – OD Sign-Off and Submission to RCS	1/13/2021

-Dave

From: Lee, Virginia <Lee.Virginia@epa.gov>

Sent: Thursday, September 24, 2020 11:28 AM

To: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Turk, David <Turk.David@epa.gov>

Subject: RE: PFAS Data Call Monthly Check-in

Here are the other files that Tala requested during the meeting.

Virginia Lee

Associate Chief

Chemical Information and Testing Branch

U.S. Environmental Protection Agency

Office of Pollution Prevention and Toxics

Phone: (202) 564-4142

From: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>

Sent: Thursday, September 24, 2020 11:04 AM

To: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>

Subject: RE: PFAS Data Call Monthly Check-in

From: Henry, Tala <Henry.Tala@epa.gov>

Sent: Thursday, September 24, 2020 11:03 AM

To: Passe, Loraine <Passe.Loraine@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Fahning, Diana <Fahning.Diana@epa.gov>; Scheifele, Hans <Scheifele.Hans@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>

Subject: PFAS Data Call Monthly Check-in

I do not have access to the SharePoint site where the Agenda is...please send me downloaded copy of Agenda.
Thx

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 10/7/2020 1:24:09 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: FW: 8(a) PFAS Data Call Workgroup
Attachments: DataUsage_working copy.docx; PFAS scope_working copy.docx; Preamble Excerpt 8-5-2020.docx

I imagine these documents have been updated since August, but I don't have updated documents yet.

From: Bushman, Daniel <Bushman.Daniel@epa.gov>
Sent: Wednesday, August 5, 2020 3:58 PM
To: Turk, David <Turk.David@epa.gov>
Subject: RE: 8(a) PFAS Data Call Workgroup

Hi Dave,

Attached are the three files that are in draft form. **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

Dan

Daniel R. Bushman, Ph.D.
TRI Petitions Coordinator and Chemical List Manager
202-566-0743
OCSPP/OPPT/TRI Program Division/Regulatory Development Branch
www.epa.gov/tri/chemicals

From: Turk, David <Turk.David@epa.gov>
Sent: Wednesday, August 05, 2020 3:43 PM
To: Bushman, Daniel <Bushman.Daniel@epa.gov>
Subject: RE: 8(a) PFAS Data Call Workgroup

Thanks. Would it make sense for me to look at the files in the folder? I need to ask Hannah for access.

In terms of the summary notes, any feel for how extensive the burden reduction measure(s) will be? I wonder if the PFAS use info they're developing might help inform the TRI PFAS resources page we're developing. How does "Definition with structural examples" differ from PFAS definition? It would be us simply saying that for purposes of this data call here's what we want versus saying this is a PFAS data call and here's how we define PFAS?

-Dave

From: Bushman, Daniel <Bushman.Daniel@epa.gov>
Sent: Wednesday, August 05, 2020 3:37 PM
To: Turk, David <Turk.David@epa.gov>
Subject: FW: 8(a) PFAS Data Call Workgroup

FYI

Daniel R. Bushman, Ph.D.
TRI Petitions Coordinator and Chemical List Manager
202-566-0743
OCSP/OPPT/TRI Program Division/Regulatory Development Branch
www.epa.gov/tri/chemicals

From: Fahning, Diana <Fahning.Diana@epa.gov>

Sent: Wednesday, August 05, 2020 3:27 PM

To: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>; Tyree, JamesN <tyree.jamesn@epa.gov>; Smith, ThomasA <smith.thomasa@epa.gov>; Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>; Ballard, Darryl <Ballard.Darryl@epa.gov>; Gorder, Chris <Gorder.Chris@epa.gov>; Bushman, Daniel <Bushman.Daniel@epa.gov>; Nguyen, Nhan <Nguyen.Nhan@epa.gov>; Sharkey, Susan <Sharkey.Susan@epa.gov>; Schwarz, Stephanie <Schwarz.Stephanie@epa.gov>; Cybulski, Walter <Cybulski.Walter@epa.gov>; Barkas, Jessica <barkas.jessica@epa.gov>; Tobias, David <Tobias.David@epa.gov>; EL-Zoobi, Majd <El-Zoobi.Majd@epa.gov>; Lan, Alexis <lan.alexis@epa.gov>; Weir, Harlan <weir.harlan@epa.gov>; Butler, Tristan <Butler.Tristan@epa.gov>; Cooperstein, Sharon <Cooperstein.Sharon@epa.gov>

Cc: Passe, Loraine <Passe.Loraine@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Fisher, Bethany <fisher.bethany@epa.gov>; Vendinello, Lynn <Vendinello.Lynn@epa.gov>

Subject: RE: 8(a) PFAS Data Call Workgroup

Hello Everyone,

Attached are the notes from today's PFAS Workgroup Meeting.

As a reminder, please take time to review the three documents discussed in today's meeting by **COB Friday, August 7th**. If you are unable to review them before Friday, please reach out to Hannah. They can be found in this [folder](#).

The action items are as follows:

1. Walter Cybulski will set-up a meeting with ORD staff and Hannah this week
2. Hannah to schedule side meeting for definition of byproduct
 - a. Susan, Kathy, Lynn Vendinello, Stephanie and someone from RAD preferably an engineer
 - b. Ask Nhan who his replacement will be from RAD
3. Workgroup to review the documents by COB Friday, August 7th

Have a wonderful afternoon!

Diana Fahning

Environmental Protection Specialist
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Chemical control Division
Phone: 202-564-8621

-----Original Appointment-----

From: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>

Sent: Thursday, July 23, 2020 8:58 AM

To: Blaufuss, Hannah; Tyree, JamesN; Smith, ThomasA; Schechter, Kathryn; Callahan, Leigh; Ballard, Darryl; Gorder, Chris; Bushman, Daniel; Nguyen, Nhan; Sharkey, Susan; Schwarz, Stephanie; Cybulski, Walter; Fahning, Diana; Barkas, Jessica; Tobias, David; EL-Zoobi, Majd; Lan, Alexis; Weir, Harlan; Butler, Tristan; Cooperstein, Sharon

Cc: Passe, Loraine; Lee, Virginia; Fisher, Bethany; Vendinello, Lynn

Subject: 8(a) PFAS Data Call Workgroup

When: Wednesday, August 5, 2020 2:00 PM-3:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams

Hello,

Welcome to the 8(a) PFAS Data Call-in workgroup. Meetings will be scheduled bi-weekly, but can be canceled when there are no topics for discussion. An agenda will be provided before each meeting. If you are calling in, please use the Teams information at the bottom of this invitation.

Thank you,



Hannah Blaufuss, MHS

Environmental Protection Specialist

U.S. EPA Office of Pollution Prevention and Toxics

Chemical Control Division

Phone: (202) 564-5614

 Please do not print this email unless absolutely necessary 

Join Microsoft Teams Meeting

Ex. 6 Personal Privacy (PP) United States, Washington DC (Toll)

Conference ID: **Ex. 6 Personal Privacy (PP)**

[Local numbers](#) | [Reset PIN](#) | [Learn more about Teams](#) | [Meeting options](#)

By participating in EPA hosted virtual meetings and events, you are consenting to abide by the agency's terms of use. In addition, you acknowledge that content you post may be collected and used in support of FOIA and eDiscovery activities.

Message

From: Turk, David [Turk.David@epa.gov]
Sent: 10/7/2020 8:05:27 PM
To: Griffin, Stephanie [griffin.stephanie@epa.gov]
Subject: FW: Lead for PFAS Data Call
Attachments: NPRM_workingcopy.docx

From: Blaufuss, Hannah <Blaufuss.Hannah@epa.gov>
Sent: Wednesday, October 7, 2020 4:04 PM
To: Turk, David <Turk.David@epa.gov>
Subject: RE: Lead for PFAS Data Call

The "Entire Workgroup" is more limited, but there is a "Background Folder" that could be helpful.

I would say that these are also good to look at:

- NPRM_workingcopy (attached)
- Decision Meeting folder – This has all the briefings with Tala

Thank you,

Hannah Blaufuss

Environmental Protection Specialist
U.S. EPA Office of Pollution Prevention and Toxics
Chemical Control Division
Phone: (202) 564-5614

♻ Please do not print this email unless absolutely necessary ♻

For information on COVID-19 visit the [CDC](#)

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 10/21/2020 1:48:14 PM
To: Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: Meeting Request for Tala
Attachments: section 21 PFAS petition.xlsx

Hi Alison & Susanna,

Tala wants to meet with me, Virginia, and Kathy regarding the attached file (overlap b/w the section 21 PFAS & those in the data call rule).

I think tomorrow at 9:30 may be the best time. I'm happy to send the request to Sharon & Liz, but wanted to give you a heads-up – let me know if you want me to forward this to them.

Thanks!

Stephanie Griffin
(202) 564-1463

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Wednesday, October 21, 2020 8:57 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

I have some questions about the TSCA status columns...can you guys look for a half hour to discuss? (today is almost solidly booked for me, but maybe tomorrow...OR we could meet before or after the Sect 21 meeting tomorrow, I am free then

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Tuesday, October 20, 2020 3:43 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Here is what I have. Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition. I put it all into a spreadsheet for everyone to review.

As for the ones that do not have CAS numbers, I may not be able to say much about them as they may be on the confidential inventory. Looks like they are byproducts...

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, October 20, 2020 1:31 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Hi Kathy,
First off, I'm sorry I missed you last week as I started taking over some of Hannah's responsibilities for the 8(a) data call. I'm looking forward to working with you more closely over the next few months!

If you haven't already received it, here is the section 21 petition for 54 PFAS. Would you be able to confirm if these are all included on the data call's list so far? I believe Tala was also interested in knowing their Inventory active/inactive statuses.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Thursday, October 15, 2020 12:27 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Steph, as mentioned, here's the citizen petition that lists the 54 PFAS chemicals that they're demanding test rules for. It would be good to crosswalk this w/our PFAS 8a rule definition scope to make sure these 54 PFAS are included.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 10:34 AM
To: Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Here you go.

Madison H. Le
Division Director
USEPA/OCSPP/OPPT
Direct: 202-564-5754
Cell: 202-507-3062

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Wednesday, October 14, 2020 9:36 AM
To: Le, Madison <Le.Madison@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Madison, could you send the petition attachment? Thank you!

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 8:11 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: Fwd: Petition to Require Testing on PFAS Under Section 21 of TSCA

FYI

Sent from my iPhone

Begin forwarded message:

From: "Dunn, Alexandra" <dunn.alexandra@epa.gov>
Date: October 14, 2020 at 7:55:54 AM EDT
To: "Fischer, David" <Fischer.David@epa.gov>, "Collazo Reyes, Yvette" <CollazoReyes.Yvette@epa.gov>, "Henry, Tala" <Henry.Tala@epa.gov>, "Le, Madison" <Le.Madison@epa.gov>, "Canavan, Sheila" <Canavan.Sheila@epa.gov>, "Dennis, Allison" <Dennis.Allison@epa.gov>, "Dunton, Cheryl" <Dunton.Cheryl@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Please work on a desk statement as we will get questions on this today.

Alexandra Dapolito Dunn, Esq.
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
US Environmental Protection Agency
Washington, DC

From **Ex. 6 Personal Privacy (PP)**

Sent: Wednesday, October 14, 2020 7:35 AM

To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Fischer, David <Fischer.David@epa.gov>; Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>

Cc: 'Thomas Fox' <tom@ceh.org>; 'Andrea Braswell' <Andrea@ceh.org>

Subject: Petition to Require Testing on PFAS Under Section 21 of TSCA

Dear EPA Administrator Wheeler:

I am enclosing a petition under section 21 of the Toxic Substances Control Act (TSCA) by six public health and environmental justice organizations in North Carolina: Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, NC Black Alliance, Democracy Green and Toxic Free NC. The petition requests that the Environmental Protection Agency (EPA) require health and environmental effects testing on 54 Per- and Polyfluoroalkyl Substances (PFAS) manufactured by The Chemours Company (Chemours) at its chemical production facility in Fayetteville, North Carolina. The petition seeks issuance of a rule or order under section 4 of TSCA compelling Chemours to fund and carry out this testing under the direction of a panel of independent scientists. The 54 PFAS have been found in human blood, drinking water, groundwater, soil, air, and locally produced food adjacent to and downstream of the Fayetteville plant as a result of emissions and discharges spanning decades. Despite this extensive exposure, little testing has been conducted on the 54 PFAS and Cape Fear communities lack information on the health impacts to which they and their families have been subjected. As demonstrated in the petition, the 54 PFAS meet the criteria for testing in section 4(a) of TSCA.

PFAS “forever chemicals” are a large group of nearly 5,000 synthetic chemicals that are readily transported around the globe and build up in people and wildlife. These chemicals take thousands of years to break down in the environment and can remain in our bodies for decades. Certain PFAS are pervasive in the blood of the US population. The enclosed petition builds on existing scientific understanding of the properties of PFAS as a class by proposing that the 54 PFAS produced by Chemours be tested for the adverse health and environmental effects that have been linked to well-studied class members, such as PFOA and PFOS. These end-points include cancer, thyroid disease, birth defects, hormone disruption, decreased fertility, immune system suppression. The proposed testing includes studies in laboratory animals as well as research into the relationship between health outcomes and PFAS exposure among people in Cape Fear communities. Studies to determine effects on fish and how the PFAS behave in the environment would also be conducted.

While the proposed testing is critical to understand the health and environmental impacts of these PFAS on Cape Fear communities, it should not delay essential steps to phase out manufacture and use of PFAS in North Carolina and the entire US based on the demonstrated characteristics of the PFAS class. Nor should it delay implementation of measures now in place to restrict or eliminate environmental releases from the Chemours facility.

We look forward to the Agency’s response to the petition and plan to follow-up on the petition with your staff.

Respectfully submitted

Robert M. Sussman
Sussman & Associates
3101 Garfield Steet, NW
Washington DC 20008

Ex. 6 Personal Privacy (PP)

Ex. 6 Personal Privacy (PP)

202-758-2227 (O)

Counsel for Petitioners

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 11/5/2020 2:31:43 PM
To: Schechter, Kathryn [Schechter.Kathryn@epa.gov]
Subject: RE: PFAS structures

Ok. I'm glad I checked! That sentence currently in there was my first pass/understanding of the overall working definition. Let's replace with the one that you provided in the update yesterday. I hadn't seen the structural description at the time I drafted that earlier sentence.

Stephanie Griffin
202-564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Thursday, November 5, 2020 9:28 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: PFAS structures

I guess I am a little confused. The sentence "For the purposes of this proposed action, the definition of PFAS includes per- and polyfluorinated compounds with two or more carbons together with fluorine, neither of which is saturated. " is sort of correct (both carbons do not have to be fully fluorinated, only one), but we also have the structural description that further defines this – the R-(CF₂)-C(F)(R')(R''). The values for R, R' and R'' were described under the structures.

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, November 05, 2020 9:22 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: RE: PFAS structures

Sure—copied here, it's from the working copy of the NPRM, bottom of page 9:
For the purposes of this proposed action, the definition of PFAS includes per- and polyfluorinated compounds with two or more carbons together with fluorine, neither of which is saturated.

(it also looks like OGC went through this document yesterday since the last time I reviewed it, so there are additional questions/considerations in the comments of this section that I'll flag for you.)

Stephanie Griffin
202-564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Thursday, November 5, 2020 9:15 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: PFAS structures

Can you show me the 2 so I can compare? Want to make sure it is right...

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, November 05, 2020 9:12 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: RE: PFAS structures

Thanks. Is the structure definition you updated in option 4 how it should be phrased in the FRN? There's another definition I included previously to discuss the scope but I can replace with this updated definition if preferred.

Stephanie Griffin
202-564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Tuesday, November 3, 2020 1:22 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: PFAS structures

Updated structures and the structure in the definition (option 4)

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, November 02, 2020 5:36 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: RE: PFAS structures

The most recent version I saw on Teams is in General→_Old→Old: https://teams.microsoft.com/l/file/8CEC4711-4DAB-4133-93F0-27C397B37851?tenantId=88b378b3-6748-4867-acf9-76aacbeca6a7&fileType=docx&objectUrl=https%3A%2F%2Fusepa.sharepoint.com%2Fsites%2FPPFASDataCall%2FShared%20Documents%2FGeneral%2F_Old%2Fold%2FPPFAS%20scope_working%20copy.docx&baseUrl=https%3A%2F%2Fusepa.sharepoint.com%2Fsites%2FPPFASDataCall&serviceName=teams&threadId=19:0a32a2ed2425406a9ae27bf6daf7f0a8@thread.skype&groupId=b2922ab9-14b4-4617-827c-b89d1420c6dd

Stephanie Griffin
202-564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Monday, November 2, 2020 4:52 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: PFAS structures

I was going to go over our latest version but cannot find it. Can you send me a link?

Thanks.
Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 10/21/2020 1:38:48 PM
To: Schechter, Kathryn [Schechter.Kathryn@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]
CC: Lee, Virginia [Lee.Virginia@epa.gov]
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

I'll send the IO a meeting request for tomorrow at 9:30.

Stephanie Griffin
(202) 564-1463

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Wednesday, October 21, 2020 9:37 AM
To: Henry, Tala <Henry.Tala@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

That would be fine with me. I have a lot of meetings tomorrow, but they are usually short!

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Wednesday, October 21, 2020 8:57 AM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

I have some questions about the TSCA status columns...can you guys look for a half hour to discuss? (today is almost solidly booked for me, but maybe tomorrow...OR we could meet before or after the Sect 21 meeting tomorrow, I am free then

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Tuesday, October 20, 2020 3:43 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>
Cc: Lee, Virginia <Lee.Virginia@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Thanks. Here is what I have. Several chemicals do not meet our working definition of PFAS, are not on the TSCA Inventory, and some are on the inventory but are not active. It should be noted that several of the ones that do not meet our definition (the polyethers) may be on the TSCA Inventory as a component of a UVCB mixture where other components meet our definition. I put it all into a spreadsheet for everyone to review.

As for the ones that do not have CAS numbers, I may not be able to say much about them as they may be on the confidential inventory. Looks like they are byproducts...

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, October 20, 2020 1:31 PM
To: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Hi Kathy,
First off, I'm sorry I missed you last week as I started taking over some of Hannah's responsibilities for the 8(a) data call. I'm looking forward to working with you more closely over the next few months!

If you haven't already received it, here is the section 21 petition for 54 PFAS. Would you be able to confirm if these are all included on the data call's list so far? I believe Tala was also interested in knowing their Inventory active/inactive statuses.

Thanks,
Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephanie@epa.gov

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Thursday, October 15, 2020 12:27 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>
Subject: FW: Petition to Require Testing on PFAS Under Section 21 of TSCA

Steph, as mentioned, here's the citizen petition that lists the 54 PFAS chemicals that they're demanding test rules for. It would be good to crosswalk this w/our PFAS 8a rule definition scope to make sure these 54 PFAS are included.

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 10:34 AM
To: Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Here you go.

Madison H. Le
Division Director
USEPA/OCSP/OPPT
Direct: 202-564-5754
Cell: 202-507-3062

From: Lee, Virginia <Lee.Virginia@epa.gov>
Sent: Wednesday, October 14, 2020 9:36 AM
To: Le, Madison <Le.Madison@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Madison, could you send the petition attachment? Thank you!

Virginia Lee
Associate Chief
Chemical Information and Testing Branch
U.S. Environmental Protection Agency
Office of Pollution Prevention and Toxics
Phone: (202) 564-4142

From: Le, Madison <Le.Madison@epa.gov>
Sent: Wednesday, October 14, 2020 8:11 AM
To: Widawsky, David <Widawsky.David@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Cc: Henry, Tala <Henry.Tala@epa.gov>; Passe, Loraine <Passe.Loraine@epa.gov>
Subject: Fwd: Petition to Require Testing on PFAS Under Section 21 of TSCA

FYI

Sent from my iPhone

Begin forwarded message:

From: "Dunn, Alexandra" <dunn.alexandra@epa.gov>
Date: October 14, 2020 at 7:55:54 AM EDT
To: "Fischer, David" <Fischer.David@epa.gov>, "Collazo Reyes, Yvette" <CollazoReyes.Yvette@epa.gov>, "Henry, Tala" <Henry.Tala@epa.gov>, "Le, Madison" <Le.Madison@epa.gov>, "Canavan, Sheila" <Canavan.Sheila@epa.gov>, "Dennis, Allison" <Dennis.Allison@epa.gov>, "Dunton, Cheryl" <Dunton.Cheryl@epa.gov>
Subject: RE: Petition to Require Testing on PFAS Under Section 21 of TSCA

Please work on a desk statement as we will get questions on this today.

Alexandra Dapolito Dunn, Esq.
Assistant Administrator
Office of Chemical Safety and Pollution Prevention
US Environmental Protection Agency
Washington, DC

From: **Ex. 6 Personal Privacy (PP)**

Sent: Wednesday, October 14, 2020 7:35 AM

To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Fischer, David <Fischer.David@epa.gov>; Collazo Reyes, Yvette <CollazoReyes.Yvette@epa.gov>; Henry, Tala <Henry.Tala@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>

Cc: 'Thomas Fox' <tom@ceh.org>; 'Andrea Braswell' <Andrea@ceh.org>

Subject: Petition to Require Testing on PFAS Under Section 21 of TSCA

Dear EPA Administrator Wheeler:

I am enclosing a petition under section 21 of the Toxic Substances Control Act (TSCA) by six public health and environmental justice organizations in North Carolina: Center for Environmental Health, Cape Fear River Watch, Clean Cape Fear, NC Black Alliance, Democracy Green and Toxic Free NC. The petition requests that the Environmental Protection Agency (EPA) require health and environmental effects testing on 54 Per- and Polyfluoroalkyl Substances (PFAS) manufactured by The Chemours Company (Chemours) at its chemical production facility in Fayetteville, North Carolina. The petition seeks issuance of a rule or order under section 4 of TSCA compelling Chemours to fund and carry out this testing under the direction of a panel of independent scientists. The 54 PFAS have been found in human blood, drinking water, groundwater, soil, air, and locally produced food adjacent to and downstream of the Fayetteville plant as a result of emissions and discharges spanning decades. Despite this extensive exposure, little testing has been conducted on the 54 PFAS and Cape Fear communities lack information on the health impacts to which they and their families have been subjected. As demonstrated in the petition, the 54 PFAS meet the criteria for testing in section 4(a) of TSCA.

PFAS “forever chemicals” are a large group of nearly 5,000 synthetic chemicals that are readily transported around the globe and build up in people and wildlife. These chemicals take thousands of years to break down in the environment and can remain in our bodies for decades. Certain PFAS are pervasive in the blood of the US population. The enclosed petition builds on existing scientific understanding of the properties of PFAS as a class by proposing that the 54 PFAS produced by Chemours be tested for the adverse health and environmental effects that have been linked to well-studied class members, such as PFOA and PFOS. These end-points include cancer, thyroid disease, birth defects, hormone disruption, decreased fertility, immune system suppression. The proposed testing includes studies in laboratory animals as well as research into the relationship between health outcomes and PFAS exposure among people in Cape Fear communities. Studies to determine effects on fish and how the PFAS behave in the environment would also be conducted.

While the proposed testing is critical to understand the health and environmental impacts of these PFAS on Cape Fear communities, it should not delay essential steps to phase out manufacture and use of PFAS in North Carolina and the entire US based on the demonstrated characteristics of the PFAS class. Nor should it delay implementation of measures now in place to restrict or eliminate environmental releases from the Chemours facility.

We look forward to the Agency’s response to the petition and plan to follow-up on the petition with your staff.

Respectfully submitted

Robert M. Sussman
Sussman & Associates
3101 Garfield Steet, NW
Washington DC 20008

Ex. 6 Personal Privacy (PP)

202-758-2227 (O)

Counsel for Petitioners

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 10/22/2020 2:23:06 PM
To: Turk, David [Turk.David@epa.gov]
Subject: Section 4 petition spreadsheet
Attachments: Section 21 PFAS petition_TH Notes.xlsx

Ahead of your kick-off meeting to discuss the petition, I wanted to share a spreadsheet that Kathy Schechter compiled on these 54 chemicals, which may help in some initial discussions of the merits of the petition. Virginia, Kathy, and I just briefly went over this file with Tala – she made some notes here.

Also, since several of these don't have names, CASRNs, or DSSTOX IDs, I'm not clear if that limits EPA's testing authority re- Chemours – do these chemicals actually leave their facility, or are these degradation products beyond the fenceline?

Finally, do you mind if I join the meeting – at the very least, to learn more about the section 21 process? If so, would you please forward the invite? Thanks!

Stephanie Griffin
Toxics Release Inventory Program
U.S. Environmental Protection Agency
(202) 564-1463
Griffin.Stephannie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 12/4/2020 6:11:05 PM
To: Henry, Tala [Henry.Tala@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Turk, David [Turk.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Tillman, Thomas [Tillman.Thomas@epa.gov]
Subject: RE: For Tala: PFAS 8a rule NPRM Draft
Attachments: PFAS 8a NPRM_12-3-2020_clean.docx; PFAS 8a NPRM_11-20-2020_for Tala_TH Comments.docx

Hoping Sharepoint does the trick:

Redline: [PFAS 8a NPRM_11-20-2020_for Tala_TH Comments.docx](#)

Clean version: [PFAS 8a NPRM_12-3-2020_clean.docx](#)

If not, I attached local copies of each here.

Stephanie Griffin
202-564-1463

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Friday, December 4, 2020 12:47 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

When I click on the link it says I don't have access...

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, December 3, 2020 11:33 AM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Hi Tala,
[Here's the redline/responses](#) to your comments, uploaded in the workgroup's Teams channel. [Here is a clean version](#) if that's preferable.

Following the data collection meeting on Wednesday morning, I want to see if you still have any questions or concerns with the data elements we have proposed.

Dave forwarded these yesterday, but for convenience:

- Here's the [list of data elements](#), listed in order of which (A)—(G) line they correspond to.
- Here's a [crosswalk](#) showing which info is requested here, in CDR, and in PMNs

If you're fine with the proposed data elements & FRN draft, I can finish the whole NPRM package and start management review.

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Sunday, November 29, 2020 4:20 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft
Importance: High

Here are my initial comments.

We need to discuss; I see a lot of things being required to be reported that are not explicitly listed in Section 8a2A-D, so want to understand the past practice that establishes that we can ask for certain specific things, e.g., CDR?

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, November 20, 2020 5:02 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: For Tala: PFAS 8a rule NPRM Draft

Hi Tala,

Attached is a clean copy of the NPRM draft. Workgroup closure finished today, and OGC has signed off on this draft.

The workgroup has a monthly check-in with you on Tuesday 11/24. Would you like to cancel/reschedule this month's meeting?

Separately, I'll be submitting this for typesetting & continuing to finish the other supporting materials to send the proposed rule package up for management review & to OMB. ADP Tracker currently has OD sign-off for OMB review by

12/8, and OCSPP review & sending to OMB by 12/28. (If you have any edits to the NPRM, I can easily incorporate after typesetting.)

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 12/17/2020 6:09:06 PM
To: Henry, Tala [Henry.Tala@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
CC: Lee, Virginia [Lee.Virginia@epa.gov]; Turk, David [Turk.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Tillman, Thomas [Tillman.Thomas@epa.gov]
Subject: RE: For Tala: PFAS 8a rule NPRM Draft
Attachments: TSCA 8a PFAS NPRM_OPPT reviewed_12-7-2020.docx; Data Elements included in the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS.xlsx; Examples of PFAS and Structural Diagrams included in the Proposed Rule for Reporting and Recordkeeping Requirements for PFAS.xlsx; ICR Attachment A-8(a)PFAS NPRM Tool Mockupchment A-8(a)PFAS NPRM Tool Mockup.pptx; RIN 2070-AK67_TSCA 8a PFAS NPRM_ICR Supporting Statement_12-7-2020.docx; Section 8(a) PFAS Economic Analysis 11.25.20.docx

Hi OPPT,

Forwarding this rule & relevant supporting files to you for OCSPP review before it goes to OMB. All materials are on the [Teams channel](#) and RSB's [FRN Sharepoint site](#), but as there have been guest access/editing issues for Teams, I'm also attaching copies of relevant files.

Files attached:

- FRN
- Supporting files for the FRN:
 - List of examples of PFAS
 - List of proposed data elements
- ICR Supporting Statement (and Appendix A, a mockup of the proposed reporting tool)
- Economic Analysis

I think it's important to note to OCSPP that the FRN is still with RSB for typeset review. There are a few small items we're working to resolve with RSB before the typeset version is completed (including the numbering of the proposed new CFR text), but none of those are substantive issues that would impact OCSPP's review.

Please let me know if you need anything else for this rule. Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Thursday, December 17, 2020 8:10 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

This can be done AFTER we get this moving...in preparation for receipt of the studies

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Thursday, December 17, 2020 7:42 AM

To: Henry, Tala <Henry.Tala@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>

Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Thanks – change incorporated. I'll reach out to the NMP, PV29, and dioxane teams for their perspectives.

Stephanie Griffin

Data Gathering and Analysis Division

Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency

(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>

Sent: Wednesday, December 16, 2020 6:33 PM

To: Griffin, Stephanie <griffin.stephanie@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>

Subject: RE: For Tala: PFAS 8a rule NPRM Draft

See below; make change and 'package' up for transmittal to OCSPP

Tala R. Henry, Ph.D.

Deputy Director

Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Wednesday, December 16, 2020 11:42 AM

To: Henry, Tala <Henry.Tala@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>

Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Wednesday, December 16, 2020 8:07 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Ex. 5 Deliberative Process (DP)

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Tuesday, December 15, 2020 4:19 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Tala,

Thanks for your quick review! Answers to your questions in the document are below. The FRN is with RSB for editing – once they've cleared it, I'll let you (and Alison & Susanna) know so we can forward the whole NPRM package to OCSPP.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Please let me know if you have any other questions on the proposed rule. Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Friday, December 4, 2020 5:06 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

I went through the redline version (so I could see what I commented) and "OK" responded to everything im good with. I added a COUPLE additional edits and have a couple additional Qs. The Qs can just be answered in an email. Otherwise I think it is ready to pass up to OCSPP. Le me and Alison & Susanna know when the next clear version is ready for 'transmittal'.

Thanks!!

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Thursday, December 3, 2020 11:33 AM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft

Hi Tala,
[Here's the redline/responses](#) to your comments, uploaded in the workgroup's Teams channel. [Here is a clean version](#) if that's preferable.

Following the data collection meeting on Wednesday morning, I want to see if you still have any questions or concerns with the data elements we have proposed.
Dave forwarded these yesterday, but for convenience:

- Here's the [list of data elements](#), listed in order of which (A)—(G) line they correspond to.
- Here's a [crosswalk](#) showing which info is requested here, in CDR, and in PMNs

If you're fine with the proposed data elements & FRN draft, I can finish the whole NPRM package and start management review.

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Sunday, November 29, 2020 4:20 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: RE: For Tala: PFAS 8a rule NPRM Draft
Importance: High

Here are my initial comments.

We need to discuss; I see a lot of things being required to be reported that are not explicitly listed in Section 8a2A-D, so want to understand the past practice that establishes that we can ask for certain specific things, e.g., CDR?

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959

E: henry.tala@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>

Sent: Friday, November 20, 2020 5:02 PM

To: Henry, Tala <Henry.Tala@epa.gov>

Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Tillman, Thomas <Tillman.Thomas@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>

Subject: For Tala: PFAS 8a rule NPRM Draft

Hi Tala,

Attached is a clean copy of the NPRM draft. Workgroup closure finished today, and OGC has signed off on this draft.

The workgroup has a monthly check-in with you on Tuesday 11/24. Would you like to cancel/reschedule this month's meeting?

Separately, I'll be submitting this for typesetting & continuing to finish the other supporting materials to send the proposed rule package up for management review & to OMB. ADP Tracker currently has OD sign-off for OMB review by 12/8, and OCSP review & sending to OMB by 12/28. (If you have any edits to the NPRM, I can easily incorporate after typesetting.)

Thanks!

Stephanie Griffin

Data Gathering and Analysis Division

Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency

(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 11/20/2020 10:02:24 PM
To: Henry, Tala [Henry.Tala@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Turk, David [Turk.David@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Tillman, Thomas [Tillman.Thomas@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: For Tala: PFAS 8a rule NPRM Draft
Attachments: PFAS 8a NPRM_11-20-2020_for Tala.docx

Hi Tala,

Attached is a clean copy of the NPRM draft. Workgroup closure finished today, and OGC has signed off on this draft.

The workgroup has a monthly check-in with you on Tuesday 11/24. Would you like to cancel/reschedule this month's meeting?

Separately, I'll be submitting this for typesetting & continuing to finish the other supporting materials to send the proposed rule package up for management review & to OMB. ADP Tracker currently has OD sign-off for OMB review by 12/8, and OCSPP review & sending to OMB by 12/28. (If you have any edits to the NPRM, I can easily incorporate after typesetting.)

Thanks!

Stephanie Griffin
Data Gathering and Analysis Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 2/24/2021 8:21:37 PM
To: Schechter, Kathryn [Schechter.Kathryn@epa.gov]
Subject: RE: PFAS definition

Not to my knowledge. But I know others in EPA have referred to the "OPPT list/OPPT definition", so I'm not sure if something is also public. I can ask around.

From: Schechter, Kathryn <Schechter.Kathryn@epa.gov>
Sent: Wednesday, February 24, 2021 2:27 PM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: PFAS definition

Do you know if we have ever published our working definition of PFAS? I know our rule is not out yet, but thought I would ask.

Kathy

Dr. Kathy Schechter
Chemist, Industrial Chemistry Branch (MC-7406M)
1201 Constitution Ave., NW
Washington, DC 20460
Telephone: (202) 564-8589
Fax: (202) 564-8679

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 2/16/2021 10:03:19 PM
To: Henry, Tala [Henry.Tala@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Turk, David [Turk.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]
Subject: RE: Status update: 8a7 rule
Attachments: TSCA 8a7 PFAS Data Call NPRM_OCSPP AA Briefing_2-16-21.pptx

Hi Tala,

Thanks for the comments. Attached is the slide deck for Michal. I'll also send up the other (slightly different) OMB version to RSB shortly. Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Monday, February 15, 2021 11:44 AM
To: Blair, Susanna <Blair.Susanna@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>
Subject: RE: Status update: 8a7 rule
Importance: High

Hi Steph,

I have reviewed and commented on the slides.

The Actg AA wants to see the slides for her own edification (does not need formal briefing). To this end, I have requested some additional information be included in a "Actg AA" version, but not in the "OMB version"...so, there will be two versions. Please review/make changes and send the Actg AA version up to OPPT IO for submission up to OCSPP and different OMB version to Angela's shop (RSB) for transmittal to OMB

As always, if Qs, please ask.

Thx, Tala

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Blair, Susanna <Blair.Susanna@epa.gov>
Sent: Friday, February 12, 2021 10:35 AM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>
Subject: FW: Status update: 8a7 rule

Here is the briefing document from Stephanie - [TSCA 8\(a\)\(7\) PFAS Data Call NPRM OMB Briefing.pptx](#)

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 4/30/2021 12:28:42 PM
To: Passe, Loraine [Passe.Loraine@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]
Subject: RE: 8a rule
Attachments: Draft 8a7 NPRM 4-30-21_for NCD.docx

Sure, attached is a local copy of the current draft. We're still reviewing OMB follow-up comments and editing, but I don't anticipate making more edits to the info on LVEs & the OPPT definition of PFAS. For the LVEs posting, the relevant section starts at the bottom of page 12 "What chemical substances would be reported under this rule?"

Let me know if you have any questions. Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Passe, Loraine <Passe.Loraine@epa.gov>
Sent: Friday, April 30, 2021 7:46 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Lee, Virginia <Lee.Virginia@epa.gov>
Subject: 8a rule

Hi Stephanie-

Thanks for chatting with us yesterday about the 8a PFAS rule. Can you please forward the latest draft of the rule? I am drafting our web text for posting the list of LVEs and want to make sure I use the same language you use in the rule for defining the list. Thanks!

Loraine Passe
New Chemicals Division
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Phone: (202) 564-9064

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 3/1/2021 4:10:51 PM
To: Pierce, Alison [Pierce.Alison@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]
Subject: RE: can i get the latest version of the PFAS 8a for OMB submission
Attachments: 10017-78_FR_Doc_for_AA_eSignature.docx

Cheryl, see attached draft of the FRN.

If it's helpful, here's the RSB link to the overall proposed rule package:

<https://usepa.sharepoint.com/sites/OCSP Community/RCS/Lists/FRN/SignatureComplete.aspx?ID=3076>

From: Pierce, Alison <Pierce.Alison@epa.gov>
Sent: Monday, March 1, 2021 10:58 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Turk, David <Turk.David@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>
Subject: FW: can i get the latest version of the PFAS 8a for OMB submission

Steph – Do you mind sharing the latest/greatest with Cheryl? I suspect the version I have may not be the latest. Thanks...

From: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Sent: Monday, March 1, 2021 10:56 AM
To: Pierce, Alison <Pierce.Alison@epa.gov>
Subject: can i get the latest version of the PFAS 8a for OMB submission

I need to write a statement for OPA

Cheryl Dunton
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
202-564-4893

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 4/8/2021 9:33:54 PM
To: Smith, Peterj [Smith.Peterj@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Henry, Tala [Henry.Tala@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Pierce, Alison [Pierce.Alison@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]
Subject: RE: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Comments
Attachments: EO 12866 Interagency Comments TSCA Section 8a PFAS EA RIN 2070-AK67_4-8-21.docx; EO 12866 Interagency Comments TSCA Section 8a PFAS FRN RIN 2070-AK67_4-8-21.docx

Hi Peter,

Tala provided some edits to our responses to comment. I've incorporated her edits into the attached to be shared with Michal. Will these files also be uploaded to Sharepoint to share with OMB, or should I also incorporate these edits into those files?

Please let me know if you have any questions. Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Wednesday, April 7, 2021 4:28 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>; Mosby, Jackie <Mosby.Jackie@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>
Subject: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Comments

Hi Tala,

For your review and sign-off, I am pleased to provide the draft responses to IA comments on the NPRM and the EA. In accordance with instruction provided by Michal during the 3/25/2021 OPS General, she will not need to further review the comment responses unless there are significant issues she needs to be aware of and responses she needs to see in kind. We will otherwise give her a copy of what we sent to OMB.

Please let us know if you have any questions or suggested revisions.

All the best,
Peter

NOTICE: If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency| Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 5/10/2021 2:34:18 PM
To: Blobaum, Sam [Blobaum.Sam@epa.gov]; Dunton, Cheryl [Dunton.Cheryl@epa.gov]
Subject: RE: For Review: TSCA 8a PFAS Press Release
Attachments: Copy 4-27-21 EO 12866 Interagency Followup comments TSCA Section 8a PFAS NPRM FRN RIN 2070-AK67.docx

Hi Sam,

See attached copy of the NPRM. At this point, any future edits to the FRN would be wordsmithing; we wouldn't be changing anything substantive. The 2nd round of responses to comments are still in DGAD/OPPT management review, and I'll keep you in the loop with any status updates.

Thanks!

Steph

From: Blobaum, Sam <Blobaum.Sam@epa.gov>
Sent: Monday, May 10, 2021 8:41 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>; Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Subject: RE: For Review: TSCA 8a PFAS Press Release

Got it! Would you mind sending me that updated FRN, Stephanie? I'll use that to finish up the webpages and then send the full package to Dave Turk, Larry and David Widawsky.

If we are looking at a Memorial Day release, I think it would be great to have their feedback by Wednesday or Thursday.

Thanks,
Sam

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Friday, May 7, 2021 2:50 PM
To: Dunton, Cheryl <Dunton.Cheryl@epa.gov>; Blobaum, Sam <Blobaum.Sam@epa.gov>
Subject: RE: For Review: TSCA 8a PFAS Press Release

I haven't heard that timing update, but Angela likely knows something I don't regarding OMB's decisions and timing. I thought we were still operating under the expectation of publishing in early/mid June, though that's also not far off, so we should move to finalizing the comms regardless.

I don't have any other changes/additions to the press release or backpocket Qs at this time. Please let me know if you need any other info from me.

Steph

From: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Sent: Friday, May 7, 2021 2:42 PM
To: Blobaum, Sam <Blobaum.Sam@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: For Review: TSCA 8a PFAS Press Release

I heard from Angela today that this could go out before Memorial Day (??). If that's true, we need to start wrapping up the comms so I can review them and move them up the chain. Thanks.

From: Blobaum, Sam <Blobaum.Sam@epa.gov>
Sent: Wednesday, April 28, 2021 11:41 AM

To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Subject: RE: For Review: TSCA 8a PFAS Press Release

Stephanie,

Thanks so much for your help! Looking at your comments, **Ex. 5 Deliberative Process (DP)**

Ex. 5 Deliberative Process (DP)

On your second comment, if there are specific items about which we are soliciting comments, I think we can mention that here.

I have transferred your initial backpocket Q&As to the attached document. We can add to it as we get closer to the rule.

Thanks!
Sam

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Wednesday, April 28, 2021 10:47 AM
To: Blobaum, Sam <Blobaum.Sam@epa.gov>
Cc: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Subject: RE: For Review: TSCA 8a PFAS Press Release

Hi Sam,

While we're still in OMB review for the 8a7 PFAS proposed rule, I did make a few edits/comments to the draft press release. As a timing update, OMB review should end at the end of May, and we're expected to publish in early/mid June. We just received OMB's 2nd round of comments, and I think we have a good idea of what's likely to be published.

I've started with a list of potential back pocket Qs that may be needed, based on what I'm expecting will be published.

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Please feel free to reach out with any questions you have on the above – I'm happy to have a call if that's easier, as well. I'll also keep you in the loop with publication status updates and any additional backpocket qs that arise.

Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Blobaum, Sam <Blobaum.Sam@epa.gov>
Sent: Monday, March 15, 2021 10:11 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Dunton, Cheryl <Dunton.Cheryl@epa.gov>
Subject: For Review: TSCA 8a PFAS Press Release

Stephanie,

Please find attached our draft press release for the TSCA 8a PFAS data gathering announcement for your review. Do you have a sense of when we might be releasing this?

Also, are there any back pocket questions we should be prepared to answer? Anything people might be upset about/critical about that we'll need to address? For example, will people say we're not being inclusive of enough PFAS or that there's too much burden on companies? Any litigation concerns?

Thank you,

Sam Blobaum
Communications Branch
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
Cell: (708) 257-2069
Pronouns: he/him/his

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 3/26/2021 5:12:22 PM
To: Bushman, Daniel [Bushman.Daniel@epa.gov]; Sharkey, Susan [Sharkey.Susan@epa.gov]; Cooperstein, Sharon [Cooperstein.Sharon@epa.gov]; Lan, Alexis [lan.alexis@epa.gov]; Butler, Tristan [Butler.Tristan@epa.gov]; Raffaele, Kathleen [raffaele.kathleen@epa.gov]; Lee, Virginia [Lee.Virginia@epa.gov]; Smith, ThomasA [smith.thomasa@epa.gov]; Schechter, Kathryn [Schechter.Kathryn@epa.gov]; Callahan, Leigh [Callahan.Leigh@epa.gov]; Gorder, Chris [Gorder.Chris@epa.gov]; Shortt, Veronica [Shortt.Veronica@epa.gov]; Foster, Stiven [Foster.Stiven@epa.gov]; Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]; Cybulski, Walter [Cybulski.Walter@epa.gov]; Holsinger, Hannah [Holsinger.Hannah@epa.gov]; Fahning, Diana [Fahning.Diana@epa.gov]; Barkas, Jessica [barkas.jessica@epa.gov]; Tobias, David [Tobias.David@epa.gov]
CC: Turk, David [Turk.David@epa.gov]
Subject: Update: 8a7 PFAS Data Call- IA Comments
Attachments: Interagency Comments Summary_8a7 PFAS NPRM.docx; Copy EO 12866 Interagency Comments TSCA Section 8a PFAS FRN RIN 2070-AK67.docx; Copy EO 12866 Interagency Comments TSCA Section 8a PFAS EA RIN 2070-AK67.docx

Hi all,

Some important PFAS data call updates: We received the first round of OMB/interagency comments on the FRN and EA on Tuesday. There are a lot of comments, although some are repeated several times. On Wednesday, a smaller group met with OCSPP's Regulatory Support Branch to start divvying up comments for initial review. The two files with IA comments so far are uploaded on RSB's Sharepoint, but I don't think everyone has access to that site, so I've attached local copies here. I've also attached a draft summary of the substantive comments & approaches to respond.

Note: There are some comments that will need input from other programs/offices, so I'll be reaching out to specific people as needed.

Our goal is to provide the first round of responses back to RSB by **Friday, April 1**. IA review ends June 1, so we're being asked to fast-track providing responses if possible, since we're nearly 1/3 way through the review period. I'll be providing draft responses for management review in batches over the next several days.

For our regular workgroup meeting on Wednesday, I'd like to go over some of the more significant comments, discuss planned responses so far, and address any questions other program offices might have. My office director will also be requesting feedback from our AA regarding the imported articles topic, and hopefully I'll have additional direction/feedback on that by Wednesday's meeting. Additionally, given some of the comments on the EA, we've scheduled a follow-up call with OMB for Wednesday 3/31 at 4pm. Hopefully more to come following that call.

Questions/concerns? Feel free to reach out ahead of the Wednesday workgroup meeting. Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 5/21/2021 11:45:26 AM
To: Henry, Tala [Henry.Tala@epa.gov]; Smith, Peterj [Smith.Peterj@epa.gov]
CC: Pierce, Alison [Pierce.Alison@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]; Blair, Susanna [Blair.Susanna@epa.gov]; Siciliano, CarolAnn [Siciliano.CarolAnn@epa.gov]; Mosby, Jackie [Mosby.Jackie@epa.gov]; Hofmann, Angela [Hofmann.Angela@epa.gov]; Sleasman, Katherine [Sleasman.Katherine@epa.gov]; Siu, Carolyn [siu.carolyn@epa.gov]; Widawsky, David [Widawsky.David@epa.gov]; Reisman, Larry [Reisman.Larry@epa.gov]; Turk, David [Turk.David@epa.gov]; Canavan, Sheila [Canavan.Sheila@epa.gov]; Rice, Cody [Rice.Cody@epa.gov]; Callahan, Leigh [Callahan.Leigh@epa.gov]
Subject: RE: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Follow-up Comments
Attachments: EO12866InteragencyFollowupcommentsTSCASection8aPFASNPRMFRNRIN2070AK67.docx

Thanks, Tala.

Peter, the response has been updated to just the rule in the attached file. EPA responses should be good to go to OMB!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Henry, Tala <Henry.Tala@epa.gov>
Sent: Thursday, May 20, 2021 4:27 PM
To: Smith, Peterj <Smith.Peterj@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>; Mosby, Jackie <Mosby.Jackie@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>; Rice, Cody <Rice.Cody@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>
Subject: RE: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Follow-up Comments

FRN: On page 15 an 'new comment' is answered by citing the the LCPFC Guidance...which is soon to be rescinded. Cant we answer citing the the RULE?

Please fix that and this can go to OMB.
Thx all.

Tala R. Henry, Ph.D.
Deputy Director
Office of Pollution Prevention & Toxics

T: 202-564-2959
E: henry.tala@epa.gov

From: Smith, Peterj <Smith.Peterj@epa.gov>
Sent: Thursday, May 20, 2021 3:39 PM
To: Henry, Tala <Henry.Tala@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Schmit, Ryan <schmit.ryan@epa.gov>; Blair, Susanna <Blair.Susanna@epa.gov>; Siciliano, CarolAnn <Siciliano.CarolAnn@epa.gov>; Mosby, Jackie <Mosby.Jackie@epa.gov>; Hofmann, Angela <Hofmann.Angela@epa.gov>; Sleasman, Katherine <Sleasman.Katherine@epa.gov>; Siu, Carolyn <siu.carolyn@epa.gov>; Widawsky, David <Widawsky.David@epa.gov>; Reisman, Larry <Reisman.Larry@epa.gov>; Turk, David <Turk.David@epa.gov>; Griffin, Stephanie <griffin.stephanie@epa.gov>; Canavan, Sheila <Canavan.Sheila@epa.gov>; Rice, Cody <Rice.Cody@epa.gov>; Callahan, Leigh <Callahan.Leigh@epa.gov>
Subject: FOR OPPT-OD SIGN-OFF: PFAS-TSCA 8(a) NPRM - Draft Responses to IA Follow-up Comments

Hi Tala,

For your review and sign-off, I am pleased to provide the draft responses to IA comments on the NPRM and the EA. For completeness, I've also attached the materials requested by IA reviewers in their comments. During the 3/25 OPS General, Michal advised that she wouldn't need to review comment responses unless there are significant issues, and our OMB desk officer and I agree that there isn't anything "significant" about the follow-up comments (although reasonable minds may disagree).

I'll send promptly pass on to OMB with your agreement that these are good to go. Please let us know if you need anything else!

All the best,
Peter

***NOTICE:** If this electronic communication explains, justifies, or documents an official action or decision, it may be subject to federal records requirements. Federal employees should evaluate the contents of this message before deleting it.*

Peter J. Smith | Office phone (202) 564-0262 | Mobile phone (202) 845-3485 | E-mail smith.peterj@epa.gov
US Environmental Protection Agency | Office of Chemical Safety & Pollution Prevention | Regulatory Support Branch

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 4/15/2021 4:47:29 PM
To: Comnes, Meredith [comnes.meredith@epa.gov]
Subject: 8a7 comments
Attachments: SENT TO OMB 4-9-21_EO 12866 Interagency Comments TSCA Section 8a PFAS FRN RIN 2070-AK67_4-8-21.docx

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 6/2/2021 8:10:13 PM
To: Smith, Peterj [Smith.Peterj@epa.gov]
CC: Turk, David [Turk.David@epa.gov]; Schmit, Ryan [schmit.ryan@epa.gov]
Subject: 8a7 FRN Pass Back
Attachments: EO 12866 Interagency Followup Comments TSCA Section 8a PFAS NPRM FRN RIN 2070 AK67 Round 3_EPA edits.docx

Hi Peter,

While we're waiting for OMB/SBA's response on us not soliciting comment in the RFA certification section, I wanted to pass along the draft with all other edits and responses to expedite the pass back to OMB. I didn't notice the latest version in Sharepoint, but if I overlooked it, please let me know and I'm happy to post these edits there.

As a heads-up, I'll be out of the office on Friday and Monday, so wanted to ensure that others had access to the latest version in case we don't hear from OMB by COB tomorrow.

Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 6/21/2021 12:36:07 PM
To: Schwarz, Stephanie [Schwarz.Stephanie@epa.gov]
Subject: OGC Review: 8a7 Presentation for ChemWatch 6/23
Attachments: June 2021 ChemWatch Presentation_PFAS Data Call NPRM.pptx

Hi Stephanie,

We received a late ask to present on the proposed rule at ChemWatch this Wednesday. Would you mind taking a quick look at the slides? Most of the slides are repeats of the OMB presentation a few months ago, though changes include: listing the specific items for which we're soliciting comment, and listing the proposed data elements over several appendix slides (with the corresponding 8a2 subparagraph).

Just for your awareness, this presentation will be brief and will include a few Q&As, though we've made it clear to the conference organizers that I'm not going to be able to answer or address anything other than minor clarifying questions—everything else should be submitted to the docket.

Thanks!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov



TSCA Section 8(a)(7) Reporting and Recordkeeping Requirements for Perfluoroalkyl and Polyfluoroalkyl Substances: Proposed Rule

U.S. ENVIRONMENTAL PROTECTION AGENCY

JUNE 23, 2021

CHEMICAL WATCH PRESENTATION



Presentation Outline

- *Background
- *Overview of Proposed Rule
 - * Scope of PFAS
 - * Reporting Entities
 - * Data Elements
 - * Electronic Reporting
 - * Recordkeeping Requirements
- *Impacts of Proposed Rule
- *Projected Schedule
- **Federal Register* Notice



Background: What are PFAS?

- Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals.
- PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s.
- PFAS can be found in a wide variety of consumer products (e.g., food packaging, cleaning products, paints, certain fire-fighting foam) and industrial uses (e.g., chrome plating, electronics manufacturing).
- There is evidence that exposure to PFAS can lead to adverse human health effects.
- For more information, please visit www.epa.gov/pfas.



Background: Rulemaking Authority

- *The Fiscal Year 2020 National Defense Authorization Act (NDAA) amended TSCA section 8(a) by adding section 8(a)(7).
- *TSCA section 8(a)(7) requires EPA to promulgate a rulemaking by January 1, 2023, requiring manufacturers (including importers) of a PFAS in any year since January 1, 2011, to submit a report to EPA containing information outlined in section 8(a)(2) for each year since January 1, 2011.



Overview of Proposed Rule



Scope of PFAS

•The scope of PFAS for this rulemaking are substances that structurally contain the unit $R-(CF_2)-C(F)(R')R''$. Both the CF_2 and CF moieties are saturated carbons and none of the R groups (R , R' or R'') can be hydrogen.

* Any TSCA chemical substance* meeting this definition which has been manufactured in any year since January 1, 2011, is reportable.

*Under TSCA, a "chemical substance" means: any organic or inorganic substance of a particular molecular identity, including — (i) any combination of such substances occurring in whole or in part as a result of a chemical reaction or occurring in nature, and (ii) any element or uncombined radical. (8) Such term does not include — (i) any mixture, (ii) any pesticide (as defined in the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.]) when manufactured, processed, or distributed in commerce for use as a pesticide, (iii) tobacco or any tobacco product, (iv) any source material, special nuclear material, or byproduct material (as such terms are defined in the Atomic Energy Act of 1954 [42 U.S.C. 2011 et seq.] and regulations issued under such Act), (v) any article the sale of which is subject to the tax imposed by section 4181 of the Internal Revenue Code of 1986 [26 U.S.C. 4181] (determined without regard to any exemptions from such tax provided by section 4182 or 4221 or any other provision of such Code) and any component of such an article (limited to shot shells, cartridges, and components of shot shells and cartridges), and (vi) any food, food additive, drug, cosmetic, or device (as such terms are defined in section 201 of the Federal Food, Drug, and Cosmetic Act [21 U.S.C. 321]) when manufactured, processed, or distributed in commerce for use as a food, food additive, drug, cosmetic, or device. The term "food" as used in clause (vi) of this subparagraph includes poultry and poultry products (as defined in sections 4(e) and 4(f) of the Poultry Products Inspection Act [21 U.S.C. 453(e) and (f)]), meat and meat food products (as defined in section 1(j) of the Federal Meat Inspection Act [21 U.S.C. 601(j)]), and eggs and egg products (as defined in section 4 of the Egg Products Inspection Act [21 U.S.C. 1033]).



Scope of PFAS

- ♦ EPA has identified at least 1,364 PFAS under this structural definition, including:
 - All PFAS listed as active on the February 2021 TSCA Inventory
 - All PFAS with TSCA section 5 (new chemicals) low-volume exemption claims
- ♦ To assist companies with identifying PFAS, the rule and docket supporting files will include lists of PFAS on the TSCA Inventory or submitted as new chemical low-volume exemptions, and structural diagram examples to capture any PFAS that could not be specifically listed due to CBI claims.



Reporting Entities

- *Any person who has manufactured (including imported) a PFAS meeting the structural definition at any time since January 1, 2011, is required to report
- *No reporter exemptions to this proposed rule
 - * Unlike small manufacturer exemptions for other chemical reporting rules under TSCA section 8(a)(1), section 8(a)(7) specifically states that “each person who has manufactured a chemical substance that is a [PFAS]” shall be subject to the rule.



Data Elements

*TSCA section 8(a)(2) authorizes EPA to collect information on each PFAS regarding:

- * Chemical or mixture identity, trade name, and molecular structure
- * Categories of use
- * Quantity manufactured or processed for each category of use
- * Descriptions of byproducts resulting from the manufacture, processing, use, or disposal
- * Existing environmental and health effects information
- * Number of workers exposed and duration of exposure
- * Manner or method of disposal and any change in manner or method

*Some proposed data elements are similar to information required for the 2020 Chemical Data Reporting (CDR) cycle (e.g., production volumes, worker exposure information)

- * Key difference: this rule requires information for each year in which that PFAS was manufactured, without exemptions
- * To mitigate duplicative reporting, EPA proposes to allow submitters to indicate in the reporting tool if they have provided this information to EPA already, for that year



Electronic Reporting

- *EPA will create a new reporting tool for this rule
 - * Hosted on CDX with other chemical information systems reporting tools
- *EPA is proposing to allow reporters to indicate to EPA if they have already provided a specific data element, for that same year, to EPA under another CDX reporting program to mitigate potential duplicative reporting
- *Environmental and health effects information submitted in the format of OECD harmonized templates when applicable (not all data endpoints have established templates)
 - * Underlying data or relevant study reports uploaded as attachments
- *CBI claims and substantiations will follow requirements and procedures under TSCA section 14



Recordkeeping Requirements

- *Proposed 5-year recordkeeping period following final date of submission period
- *Rationale:
 - * Consistent with CDR rule and some other 8(a) chemical-specific reporting rules
 - * Retention requirement corresponds with statute of limitations for violations
 - * Supports EPA's future activities informed by this data call



Impacts of Proposed Rule

- ♦ 234 respondents are expected to report under this one-time data call
 - ♦ Expected respondents identified in the Chemical Data Reporting database and extrapolated to include manufacturers not in CDR database
- ♦ Estimated total industry burden and cost:
 - ♦ \$9.8 million
 - ♦ 122,104 hours (no annualized capital or operation and maintenance costs)
- ♦ Economic costs include rule familiarization, form completion, CBI claim substantiation, electronic reporting, and recordkeeping activities.
- ♦ Benefits EPA by providing information on PFAS which the Agency does not currently have



How EPA May Use These Data

• **Support implementation of TSCA**

- Informs development of potential existing chemical risk management efforts
- Informs TSCA new chemical reviews (e.g., health/environmental effects info submitted may provide read-across data for new chemical analogs)
- Informs the understanding of new analytical methods
- Informs future TSCA section 6 activities
 - Support prioritization, scoping and risk evaluations
 - Apply to criteria for TSCA high/low prioritization

• **Share with other EPA offices:** Section 9 of TSCA mandates that EPA share certain information collected under TSCA with other EPA offices.

- Supports other EPA programs (e.g., contaminated site work, solid waste disposal, drinking water management)



Projected Schedule

- ◊ *NPRM published on June ##, 2021*
- ◊ **60-day public comment period until August ##, 2021**
- ◊ Statutory deadline for final rule by January 1, 2023
- ◊ Proposed 6-month deferral of data submission period after effective date of final rule
 - ◊ Allow EPA to finalize reporting software with required data elements
 - ◊ Allow companies to become familiar with rule and begin data gathering
- ◊ Proposed 6-month submission period
 - ◊ Reporting deadline will thus be one year from effective date of rule



Federal Register Notice: NPRM

- Published in the *Federal Register* on June ##, 2021 [FR citation]
- 60-day public comment period ends August ##, 2021
- **Comments must be submitted via [regulations.gov](https://www.regulations.gov), using this rule's docket number: EPA-HQ-OPPT-2020-0549**
- EPA specifically requests comment on:
 - Identifying chemicals subject to reporting (i.e., specific PFAS and whether to include imported articles)
 - Considerations for the economic analysis
 - Submission period
 - Potential duplicative reporting concerns
 - Scope of “existing environmental and health information” collected
 - Additional data elements or information collected
 - EPA's use and publication of non-CBI data
 - Joint submissions allowed when necessary
 - Small manufacturer considerations (i.e., regulatory and non-regulatory assistance and outreach)



Appendix



Proposed Data Elements (1/5)

(A) THE COMMON OR TRADE NAME, THE CHEMICAL IDENTITY, AND THE MOLECULAR STRUCTURE OF EACH CHEMICAL SUBSTANCE OR MIXTURE FOR WHICH SUCH A REPORT IS REQUIRED.

- Chemical name (multiple if mixture)
- Generic name(s) if chemical name(s) is CBI
- Chemical ID(s) (CASRN, Accession Number, LVE case number)
- Trade name or common name
- Representative molecular structure (attachment)
- Physical state of chemical or mixture

(B) THE CATEGORIES OR PROPOSED CATEGORIES OF USE OF EACH SUCH SUBSTANCE OR MIXTURE.

- Industrial processing and use - type of process or use
- Industrial processing and use - sector(s)
- Industrial processing and use - function category
- Consumer and commercial use - product category
- Consumer and commercial use - function category
- Consumer and commercial use - consumer or commercial
- Consumer and commercial use - used in products intended for children
- Consumer and commercial use - maximum concentration in any product



Proposed Data Elements (2/5)

(C) THE TOTAL AMOUNT OF EACH SUCH SUBSTANCE AND MIXTURE MANUFACTURED OR PROCESSED, REASONABLE ESTIMATES OF THE TOTAL AMOUNT TO BE MANUFACTURED OR PROCESSED, THE AMOUNT MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE, AND REASONABLE ESTIMATES OF THE AMOUNT TO BE MANUFACTURED OR PROCESSED FOR EACH OF ITS CATEGORIES OF USE OR PROPOSED CATEGORIES OF USE.

- * Production volume - domestically manufactured [for each year 2011-2023]
- * Production volume - imported [for each year 2011-2023]
- * Imported but never physically at site
- * Volume directly exported [for each year 2011-2023]
- * Industrial processing and use - % production volume [for each use for each year 2011-2023]
- * Consumer and commercial use - % production volume [for each use for each year 2011-2023]
- * Maximum first 12 months production volume
- * Maximum yearly production volume in any 3 years
- * Site-limited
- * Maximum quantity stored on-site at any time from 2011-2023
- * Total volume recycled (on-site) from 2011-2023



Proposed Data Elements (3/5)

(D) A DESCRIPTION OF THE BYPRODUCTS RESULTING FROM THE MANUFACTURE, PROCESSING, USE, OR DISPOSAL OF EACH SUCH SUBSTANCE OR MIXTURE.

- Byproduct chemical name(s) or description (if unknown)
- Byproduct generic name(s) if byproduct chemical name(s) is CBI
- Byproduct chemical ID(s) if applicable (CASRN, Accession Number, LVE case number)
- Was the byproduct produced from manufacture, process, use, or disposal?
- Was the byproduct released to the environment?
- If byproducts are released to the environment, indicate the environmental media are they released to
- Byproduct volume released [for each year 2011-2023]

(E) ALL EXISTING INFORMATION CONCERNING THE ENVIRONMENTAL AND HEALTH EFFECTS OF SUCH SUBSTANCE OR MIXTURE.

- OECD template (attachment)
- Study report (attachment)
- Supporting information (attachment)
- Other data relevant to environmental and health effects (e.g., range-finding studies, preliminary studies, OSHA medical screening or surveillance standards reports, adverse effects reports)



Proposed Data Elements (4/5)

(F) THE NUMBER OF INDIVIDUALS EXPOSED, AND REASONABLE ESTIMATES OF THE NUMBER WHO WILL BE EXPOSED, TO SUCH SUBSTANCE OR MIXTURE IN THEIR PLACES OF EMPLOYMENT AND THE DURATION OF SUCH EXPOSURE.

- Worker activity descriptions at manufacturing site
- Number of workers reasonably like to be exposed at the manufacturing site, for each worker activity
- Maximum duration of exposure for any worker, for each worker activity (hours/day)
- Maximum duration of exposure for any worker, for each worker activity (days/year)
- Number of workers reasonably likely to be exposed for each industrial process and use
- Maximum duration of exposure for any worker for each industrial process and use (hours/day)
- Maximum duration of exposure for any worker for each industrial process and use (days/year)
- Number of workers reasonably likely to be exposed for each commercial use
- Maximum duration of exposure for any worker for each commercial use (hours/day)
- Maximum duration of exposure for any worker for each commercial use (days/year)



Proposed Data Elements (5/5)

{G} IN THE INITIAL REPORT UNDER PARAGRAPH (1) ON SUCH SUBSTANCE OR MIXTURE, THE MANNER OR METHOD OF ITS DISPOSAL, AND IN ANY SUBSEQUENT REPORT ON SUCH SUBSTANCE OR MIXTURE, ANY CHANGE IN SUCH MANNER OR METHOD.

- Description of disposal process(es)
- Description of any changes to the disposal process or methods since 2011
- Total volume released (land disposal) [for each year 2011-2023]
- Total volume released (water) [for each year 2011-2023]
- Total volume released (air) [for each year 2011-2023]
- Total volume incinerated (on-site) [for each year 2011-2023]
- If incineration occurs, the temperature at which the chemical was incinerated



CBI Requirements

•CBI statutory requirements (from 2016 Lautenberg Act):

- The submitter must now substantiate claims of confidentiality at the time information is submitted to EPA, except for types of information listed as exempt in TSCA (e.g., production volume) (TSCA sections 14(c)(2) and (3))
- The submitter must also provide a statement supporting the claim and must certify that the statement is true and correct (TSCA sections 14(c)(1)(B) and (5))
- Information on uses that customarily would be shared with the general public or within an industry or industry sector cannot be claimed as confidential (TSCA section 14(b)(3)(B))

Message

From: Griffin, Stephanie [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8A13972C00574B1E8E84DA5B1F1528AD-GRIFFIN, ST]
Sent: 6/21/2021 1:57:43 PM
To: Pierce, Alison [Pierce.Alison@epa.gov]
Subject: RE: EPA Contact for Additional ChemWatch Presentation
Attachments: June 2021 ChemWatch Presentation_PFAS Data Call NPRM.pptx

Sure— still awaiting OGC clearance, but if Tala would like to review concurrently, that should be fine. These are largely the same slides from the OMB kick-off presentation a few months ago, but updates include:

- Updated PFAS and cost numbers
- Projected schedule for implementation [placeholders for when the rule will publish; will update/delete placeholders if we don't hear from OFR on publication by Weds.]
- Added slide on specific items for which we're requesting public comment
- Added appendix slides listing proposed reporting data elements, with corresponding section 8(a)(2) sub-paragraphs

Thanks!

From: Pierce, Alison <Pierce.Alison@epa.gov>
Sent: Monday, June 21, 2021 9:51 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Subject: RE: EPA Contact for Additional ChemWatch Presentation

Hey Steph –

Gentle nudge to remember to send up those slides when you can... Tala did express an interest in looking at them. (FWIW, to the extent you can let us know how closely they hew to the previously cleared slides, that would help)

Alison Pierce
202.564.2437 (office) | pierce.alison@epa.gov

From: Griffin, Stephanie <griffin.stephanie@epa.gov>
Sent: Monday, June 21, 2021 8:26 AM
To: Rose Maloney <rose.maloney@chemicalwatch.com>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Judy Jackson <judy.jackson@chemicalwatch.com>
Subject: RE: EPA Contact for Additional ChemWatch Presentation

Hi Rose,
Thanks for sending the below information. As you're likely aware, Friday ended up being a federal holiday for employees, so I'm sorry we weren't able to connect then. I have availability all morning today for a quick call to connect. Please feel free to call at a time convenient for you: 202-564-1463. Additionally, could you confirm when I'm scheduled to speak?

Attached is a brief biography and photo for the program.
Thank you!

Stephanie Griffin
Data Collection Branch
Office of Pollution Prevention and Toxics

U.S. Environmental Protection Agency
(202) 564-1463 | griffin.stephanie@epa.gov

From: Rose Maloney <rose.maloney@chemicalwatch.com>
Sent: Friday, June 18, 2021 7:50 AM
To: Griffin, Stephanie <griffin.stephanie@epa.gov>
Cc: Pierce, Alison <Pierce.Alison@epa.gov>; Judy Jackson <judy.jackson@chemicalwatch.com>
Subject: Re: EPA Contact for Additional ChemWatch Presentation

Dear Stephanie,

Further to Judy's email, I wanted to get in touch with some practical information for next week's conference.

We have asked all speakers to pre-record their presentations in case of technical difficulties on the day and to join live for the Q&A. I've attached a guide with some useful information and links and would be very happy to have a quick call this morning to discuss if there is a good time for you?

On Wednesday, speakers will join the conference via Zoom. I have just sent over a calendar invite with the details but for easy reference, the link to join is: <https://us02web.zoom.us/j/81646759061>

I also wondered if you have a picture and short biography to hand that we can use for your speaker profile on the [event website](#)?

Thanks once again Stephanie. Please let me know if there is a good time to talk this morning and I can set up a practice Zoom call.

Best wishes,
Rose

Rose Maloney
Senior Events Manager

Ex. 6 Personal Privacy (PP) (mobile)
+44(0)1743 818 293 (events)
+44(0)1743 818 101 (head office)

chemicalwatch.com



On Fri, 18 Jun 2021 at 10:52, Judy Jackson <judy.jackson@chemicalwatch.com> wrote:

Dear Alison,

Many thanks for the call yesterday and for your email. We are so pleased that Stephanie will present at next week's conference.

Can I just confirm that the topic will be 'The Proposed TSCA (8) PFAS Reporting Rule'. We agreed that the presentation will be for 15 minutes with a limited Q&A when clarifying questions only will be answered.

My colleague Rose, in cc, will be in touch with Stephanie later today to discuss final details for next week.

Thanks again and very best regards

Judy

Judy Jackson

Events Director - Head of Global Events

Ex. 6 Personal Privacy (PP) mobile)

+44(0)1743 818 101 (head office)

chemicalwatch.com



On Thu, 17 Jun 2021 at 22:42, Pierce, Alison <Pierce.Alison@epa.gov> wrote:

Hi Judy –

Thanks again for connecting today (and for understanding the limitations that EPA has to operate under for a presentation on the PFAS reporting rule at this juncture!). Stephanie Griffin, copied, will be EPA's presenter on this. If your team could kindly connect with her to hammer out the final details (timing, etc), we'd be appreciative.

Best,

Alison

Alison Pierce

Chief of Staff, Office of Pollution Prevention and Toxics

202.564.2437 (office) | 202.480.3346 (cell) | pierce.alison@epa.gov